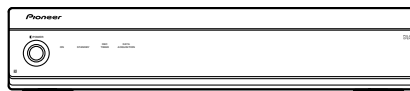


Service Manual



PDP-R05U

ORDER NO.
ARP3213

MEDIA RECEIVER

PDP-R05U PRO-R05U

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-R05U	KUC	AC120V	
PRO-R05U	KUC	AC120V	

Please connect it to the PLASMA DISPLAY PDP-505PU, PDP-435PU, PRO-505PU or PRO-435PU for adjustment and operation inspection.




For details, refer to "Important symbols for good services".

1234

SAFETY INFORMATION

A



This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

B

WARNING



This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

C



NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols  (fast operating fuse) and/or  (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible  (fusible de type rapide) et/ou  (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

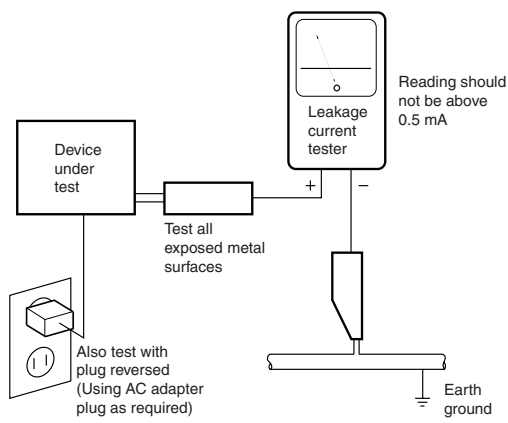
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

[Important symbols for good services]

In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely. When you find the procedures bearing any of the symbols, be sure to fulfill them:

1. Product safety



You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

2. Adjustments



To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

3. Cleaning



For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

4. Shipping mode and shipping screws



To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

5. Lubricants, glues, and replacement parts



Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount. For replacement parts or tools, the prescribed ones should be used.

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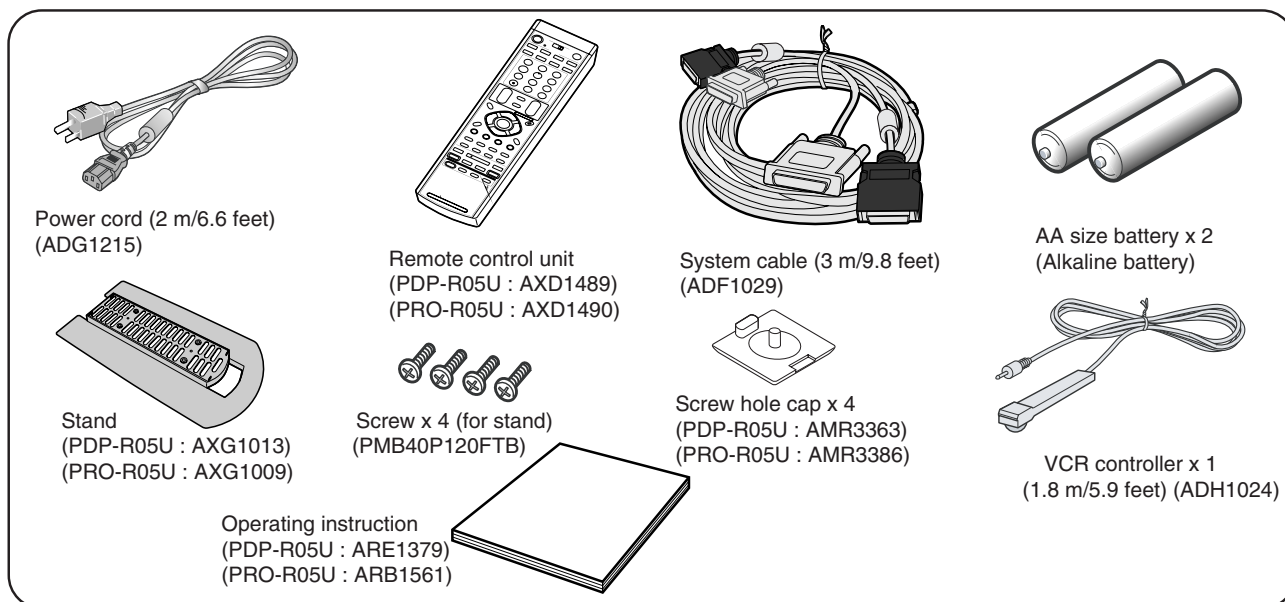
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1. SPECIFICATIONS

Item			Media Receiver , Model: PDP-R05U	
Reception System (Digital)			ATSC Digital TV system	
	Circuit type		8VSB/64QAM/256QAM/QPSK demodulation	
	Tuner	VHF/UHF	VHF 2-13ch, UHF 14-69ch	
		CATV	2-135ch	
	Audio format		Dolby Digital	
Reception System (Analog)			American TV standard NTSC system	
	Circuit type		Video signal detection PLL full synchronous detection, PLL digital synthesizer system	
	Tuner	VHF/UHF	VHF 2-13ch, UHF 14-69ch	
		CATV	ANTENNA/CABLE A IN: 1-135ch Cable: 1-125ch	
	Audio multiplex		BTSC system	
Terminals	Rear	ANTENNA/CABLE A IN	75Ω UNBAL, F Type for DTV/VHF/UHF/CATV in	
		ANTENNA B	75Ω UNBAL, F Type for VHF/UHF/CATV in Loop out	
		i.LINK (TS)	S400 (2)	
		INPUT 1	COMPONENT VIDEO in, S-VIDEO in, VIDEO in, AUDIO in, HDMI in	
		INPUT 2	S-VIDEO in, VIDEO in, AUDIO in	
		INPUT 3	COMPONENT VIDEO in, AUDIO in, HDMI in	
		Monitor Out	S-VIDEO out, VIDEO out, AUDIO out	
		Digital Audio Output	Optical (1)	
		VCR Control Output	1	
		CONTROL IN	1	
		CONTROL OUT	1	
		Cable CARD	Point of Deployment	
	Front	INPUT 4	COMPONENT VIDEO in, S-VIDEO in, VIDEO in, AUDIO in	
		PC	Analog RGB in, AUDIO in	
OSD			English/French/Spanish	
Power Requirement			120 V AC, 60 Hz, 43.3 W (31 W Standby ,120 V)	
Dimensions			420 (W) · 90 (H) · 295 (D) mm (16 ⁹ / ₁₆ (W) · 3 ⁹ / ₁₆ (H) · 11 ¹⁰ / ₁₆ (D) inches)	
Weight			5.8 kg (12.8 lbs.)	

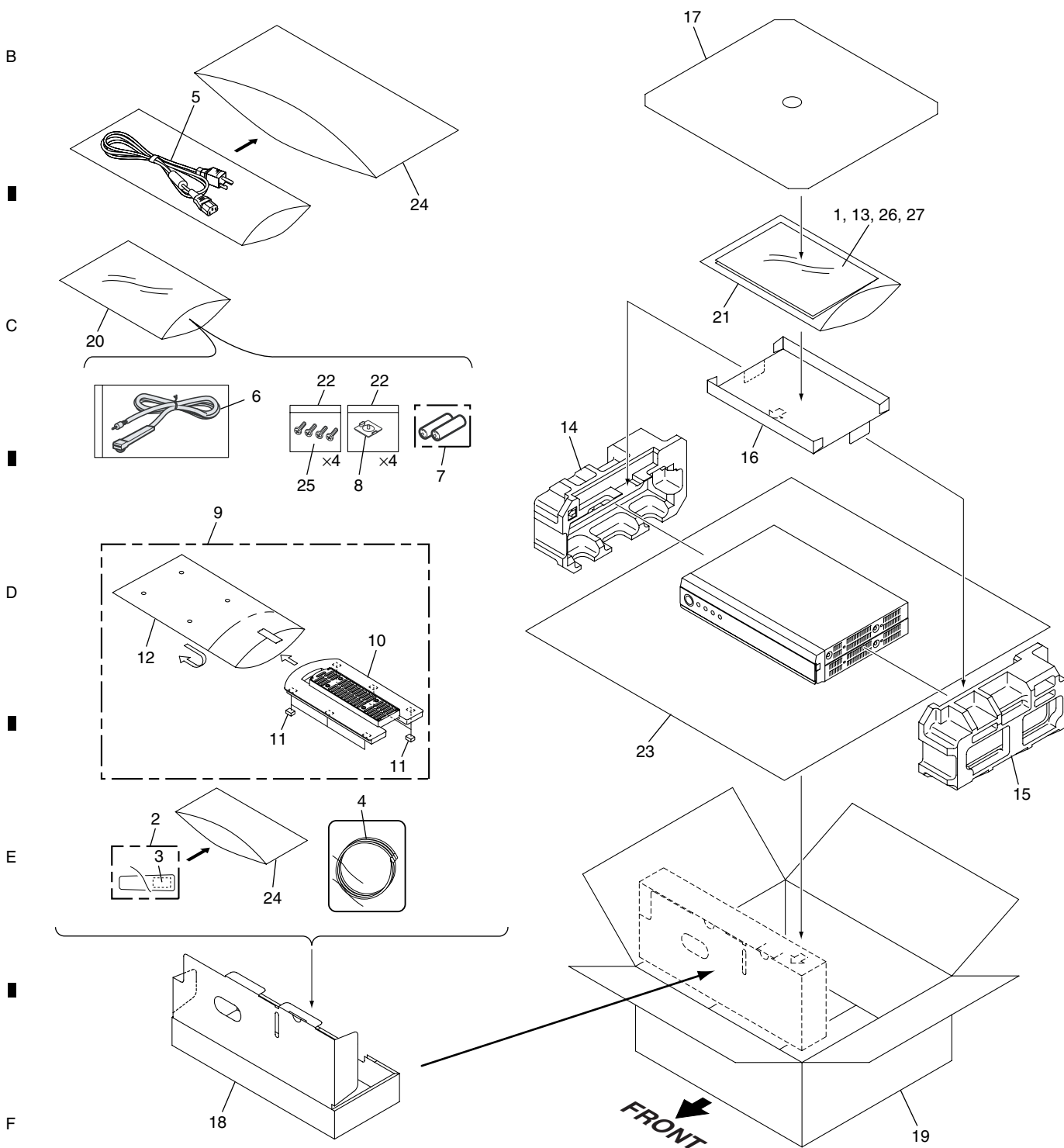
- Design and specifications are subject to change without notice.



2. EXPLODED VIEWS AND PARTS LIST

- NOTES:**
- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
 - The  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 - Screws adjacent to ▼ mark on product are used for disassembly.
 - For the applying amount of lubricants or glue, follow the instructions in this manual.
(In the case of no amount instructions, apply as you think it appropriate.)

2.1 PACKING



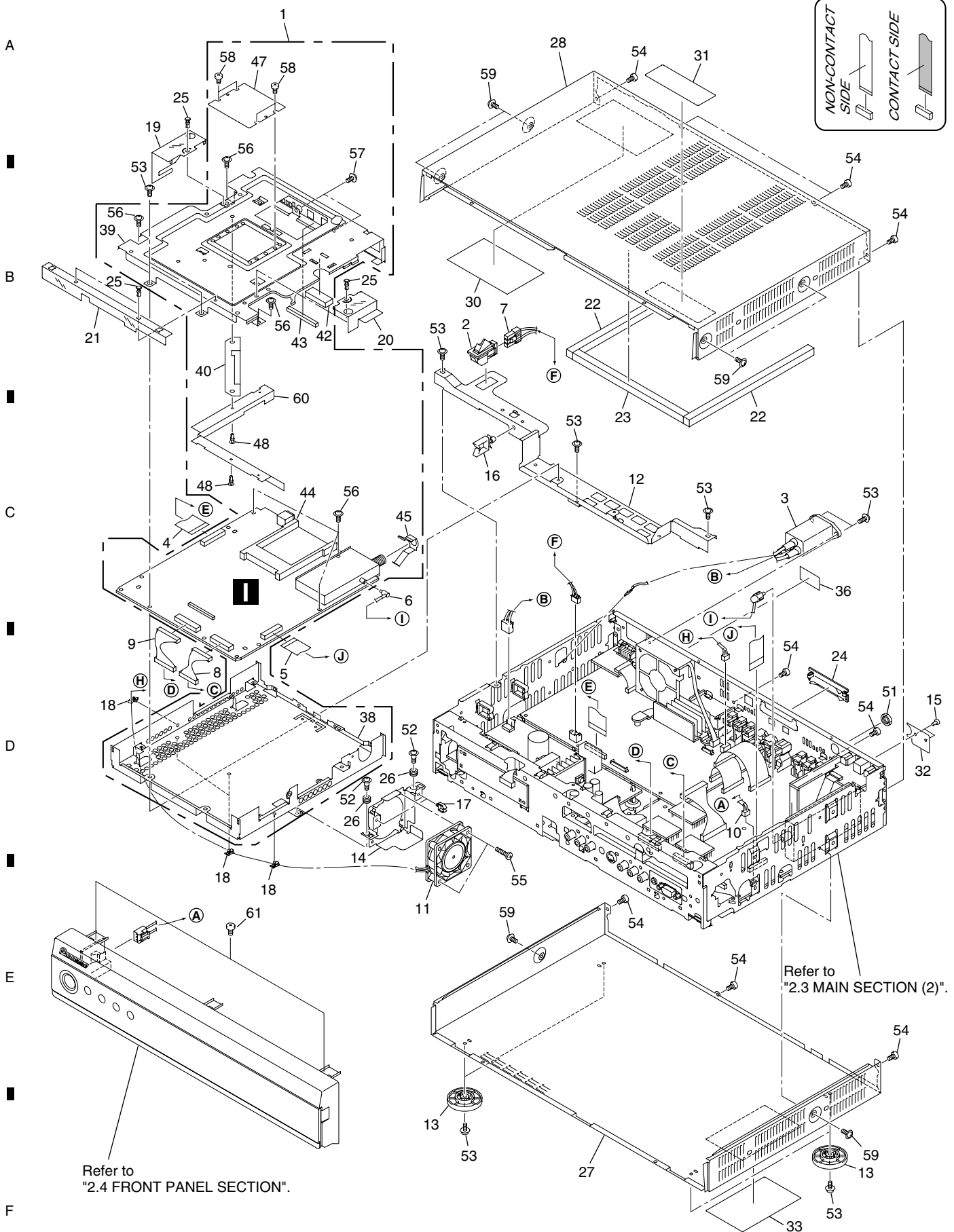
Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Operating Instructions	See Contrast table (2)	16	IM Pad	AHB1253
2	Remote Control Unit	See Contrast table (2)	17	Top Pad	AHB1256
3	Battery Cover	AZA7424	18	Accessory Box	AHC1053
4	System Cable (3m)	ADF1029	19	Carton	See Contrast table (2)
5	Power Cord	ADG1215	NSP 20	Literature Bag	AHG1303
6	VCR Controller (1.8m)	ADH1024	21	Vinyl Bag	AHG1340
NSP 7	Dry Cell Battery (LR6/AA)	VEM1021	22	Vinyl Bag	AHG1337
8	Screw Hole Cap	See Contrast table (2)	23	Laminated Sheet	AHG1350
9	Stand Assy	See Contrast table (2)	24	Air Capsule Bag	AHG1351
NSP 10	Stand	See Contrast table (2)	25	Screw	PMB40P120FTB
NSP 11	Stand Cushion	AEB1390	26	Manual Sheet	See Contrast table (2)
12	Laminated Sheet Bag	AHG1334	27	DCR User Card	ARY1157
NSP 13	Card	VRY1132			
14	Pad L	AHA2370			
15	Pad R	AHA2371			

(2) CONTRAST TABLE

PDP-R05U/KUC and PRO-R05U/KUC are constructed the same except for the following:

Mark	No.	Description	PDP-R05U/KUC	PRO-R05U/KUC
	1	Operating Instructions (English/French/Spanish)	ARE1379	Not used
	1	Operating Instructions (English)	Not used	ARB1561
	2	Remote Control Unit	AXD1489	AXD1490
	8	Screw Hole Cap	AMR3363	Not used
	8	Screw Hole Cap UE	Not used	AMR3386
	9	Stand Assy	AXG1013	Not used
	9	Stand Assy UE	Not used	AXG1009
NSP	10	Stand	AMR3352	Not used
NSP	10	Stand UE	Not used	AMR3382
	19	Carton U	AHD3244	Not used
	19	Carton UE	Not used	AHD3245
	26	Manual Sheet	ARM1259	Not used

2.2 EXTERIOR(1)



EXTERIOR(1) SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	TUNER BOARD Assy (U)	AWE1300	31	Caution Label (U)	AAX2999
⚠ 2	Power Switch (TRAP)(S1)	ASG1089	32	SR-Cover	AAX3066
⚠ 3	AC Inlet (CN1)	AKP1272	NSP 33	Label	See Contrast table (2)
4	Flexible Cable (J201)	ADD1266	34	•••••	
5	Flexible Cable (J204)	ADD1267	35	•••••	
6	Plug Cord	ADE1191	NSP 36	Serial Label	ARW1100
7	3P Housing Wire (J107)	ADX2836	37	•••••	
8	12P Housing Wire (J109)	ADX2918	NSP 38	Case Bottom	ANA1778
9	14P Housing Wire (J110)	ADX2919	39	Case Top	ANG2659
10	3P Housing Wire (J114)	ADX3067	40	Wind Reflector 2	AEC2011
⚠ 11	Fan Motor 52 x 15L	AXM1048	⚠ 41	Gasket C	AEC2014
12	Center Stay U	ANG2668	⚠ 42	Gasket A	AEC7528
13	Leg Assy	AXG1012	⚠ 43	Gasket B	AEC7529
14	Fan Holder 50	ANG2681	⚠ 44	PCMCIA Ejector	ANG2673
NSP 15	Clip	AEC-036	⚠ 45	Ground Plate B	ANG2699
16	Wire Saddle	AEC1745	46	•••••	
17	Mini Clamp	AEC1967	47	Top Cover	ANG2706
18	Side Type Mini Clamp	AEC2003	48	Rivet A	BEC1158
19	Wind Stopper A	AEC2006	49	•••••	
20	Wind Stopper B	AEC2007	50	•••••	
21	Wind Stopper C	AEC2008	51	Washer	BBN1005
22	DTV Cushion L	AED1261	52	Screw	ABA1317
23	DTV Cushion S	AED1262	53	Screw	ABZ30P080FTC
24	Rear Cover	AMR3425	54	Screw	BBZ30P060FTB
25	Rivet A	BEC1158	55	Screw	BBZ30P200FTC
NSP 26	Float Rubber RS1	DEB1569	56	Screw	ABZ30P060FTC
27	Metal Bonnet Bottom	See Contrast table (2)	57	Screw	BBZ30P080FTC
28	Bonnet Top	See Contrast table (2)	58	Screw	PMZ20P080FTC
29	Serial Sheet	AAX2609	59	Screw	See Contrast table (2)
30	Solder Warning Label	AAX2644	60	Wind Reflector	AEC7521
			61	Screw	ABZ30P060FTB

(2) CONTRAST TABLE

PDP-R05U/KUC and PRO-R05U/KUC are constructed the same except for the following:

Mark	No.	Description	PDP-R05U/KUC	PRO-R05U/KUC
	27	Metal Bonnet Bottom	ANE1632	Not used
	27	Metal Bonnet Bottom (UE)	Not used	ANE1634
	28	Bonnet Top (U)	ANE1636	Not used
	28	Bonnet Top (UE)	Not used	ANE1633
NSP	33	Label U	AAX3131	Not used
NSP	33	Label UE	Not used	AAX3132
	59	Screw	ABZ30P080FTC	ABZ30P060FTB

2.3 EXTERIOR(2)

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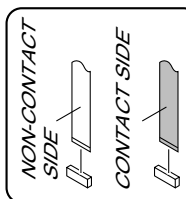
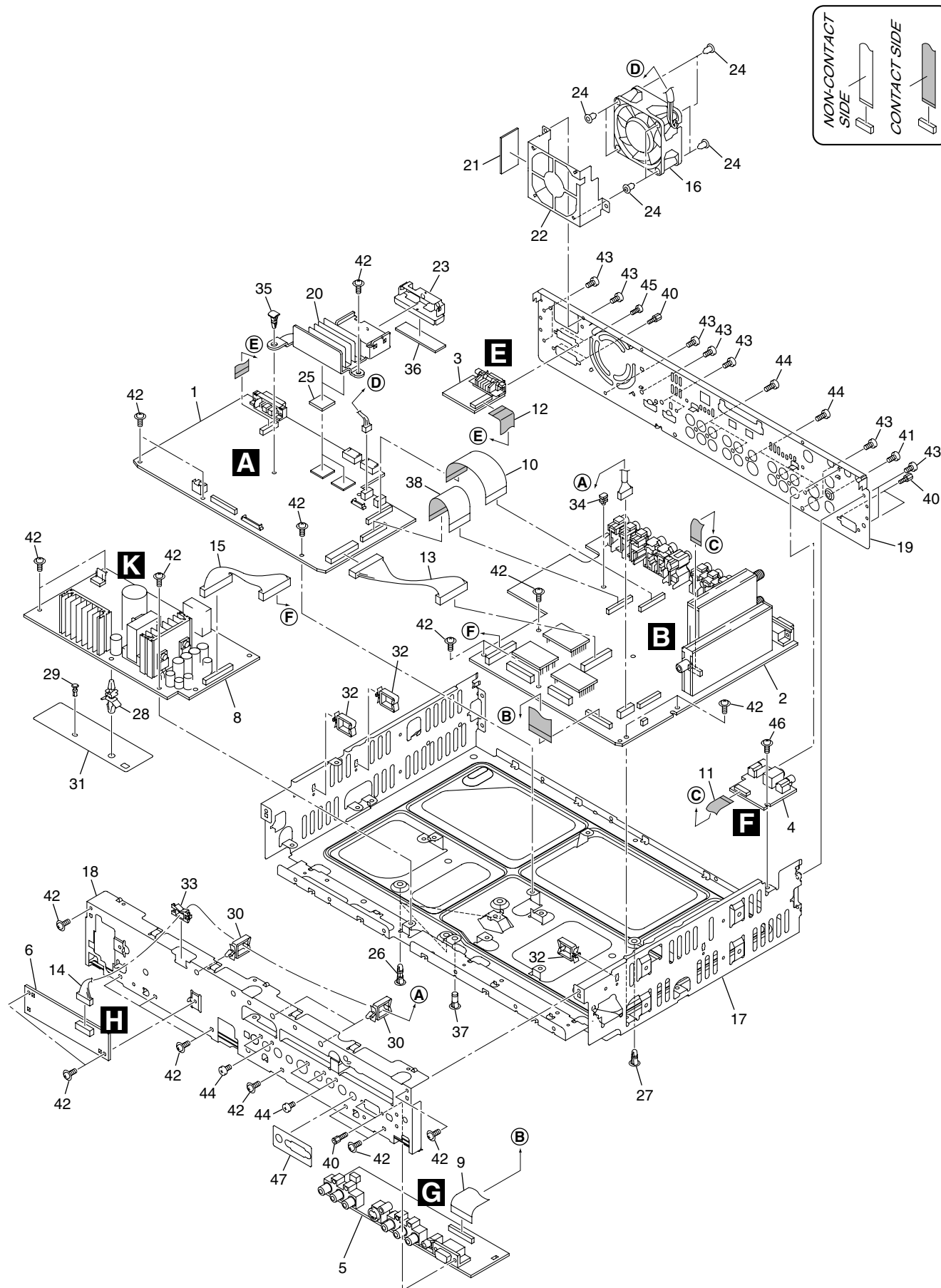
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EXTERIOR(2) SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	MR MAIN BOARD Assy	AWZ6926	26	PCB Holder	AEC1097
2	AV BOARD Assy	See Contrast table (2)	27	Spacer	AEC1256
3	MDR Assy	AWZ6922	28	Locking Card Spacer	AEC1429
4	SR Assy	AWZ6923	29	Nylon Rivet	AEC1671
5	FRONT Assy	See Contrast table (2)	30	Wire Saddle	AEC1745
6	LED Assy	AWZ6925	31	Barrier A	AEC1936
7	•••••		32	Re-use Wire Saddle	AEC1945
8	POWER SUPPLY Unit	AXY1091	33	Edge Saddle	AEC1946
9	Flexible Cable (J205)	ADD1209	34	Mini Card Spacer	AEC1959
10	Flexible Cable (J203)	ADD1210	35	Circuit Board Spacer	AEC1964
11	Flexible Cable (J206)	ADD1213	36	Gasket F	ANK1722
12	Flexible Cable (J207)	ADD1214	37	Card Spacer A	BEC1120
13	15P Housing Wire (J105)	ADX2833	38	Flexible Cable (J202)	ADD1209
14	7P Housing Wire (J113)	ADX2914	39	•••••	
15	16P Housing Wire (J112)	ADX2917	40	Hexagon Head Screw	BBA1051
16	Fan Motor 60 x 25L	AXM1047	41	Screw	ABZ30P060FTB
17	Base Chassis	See Contrast table (2)	42	Screw	ABZ30P080FTC
18	Front Chassis	See Contrast table (2)	43	Screw	BBZ30P060FTB
19	Terminal Panel	See Contrast table (2)	44	Screw	BPZ30P100FTB
20	Heatsink HDMI	ANH1618	45	Screw	PMZ26P060FTB
21	DVI Cushion	AEB1396	46	Screw	BMZ30P060FTC
22	Fan Holder	ANG2568	47	Front Chassis Sheet	AEC2010
23	HDMI Shield	ANG2646			
24	Insulation Rubber	AEB1377			
25	Silicone Sheet HDMI	AEB1379			

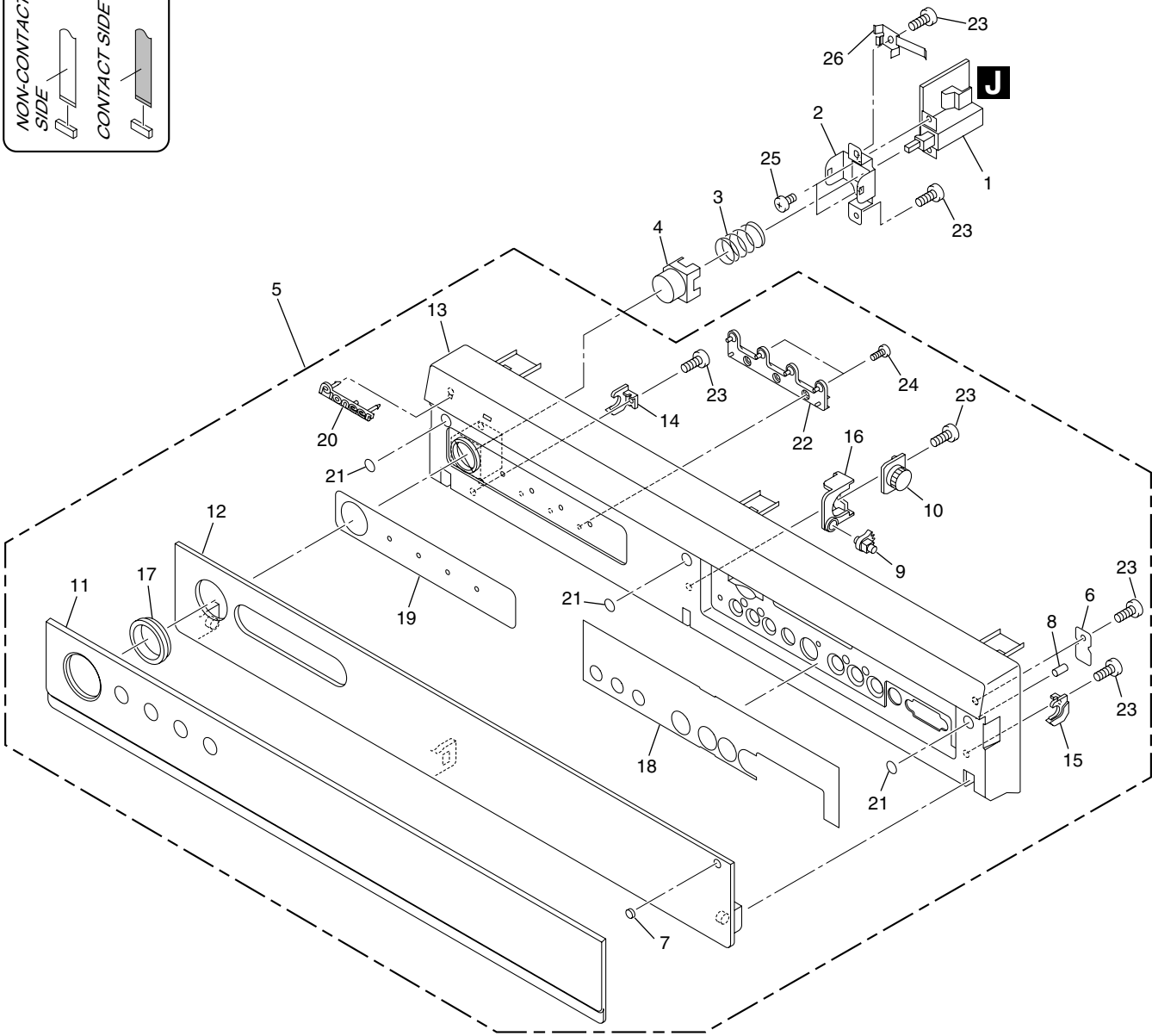
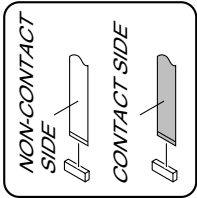
(2) CONTRAST TABLE

PDP-R05U/KUC and PRO-R05U/KUC are constructed the same except for the following:

Mark	No.	Description	PDP-R05U/KUC	PRO-R05U/KUC
	2	AV BOARD Assy	AWZ6978	AWZ6979
	5	FRONT Assy	AWZ6924	AWZ6928
	17	Base Chassis U	ANA1812	Not used
	17	Base Chassis UE	Not used	ANA1817
	18	Front Chassis	ANB1866	Not used
	18	Front Chassis UE	Not used	ANB1868
	19	Terminal Panel U	ANC2361	Not used
	19	Terminal Panel UE	Not used	ANC2367

1 2 3 4

2.4 FRONT PANEL SECTION



FRONT PANEL SECTION Parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.	
1	SW Assy	AWZ6977	16	Damper Holder	AMR3416	
2	SW Holder	ANG2670	17	Escutcheon Ring	See Contrast table (2)	A
3	SW Spring	ABH1109	18	Sealing Sheet	See Contrast table (2)	
4	Power Button	See Contrast table (2)	19	Sealing Sheet S	See Contrast table (2)	
5	Front Panel Assy	See Contrast table (2)	20	Pioneer Badge	See Contrast table (2)	
6	Magnet Holder	ANG2671	21	Door Cushion	See Contrast table (2)	
7	Magnet Catcher	ANG2675	22	LED Lens	AMR3417	
8	Magnet	AMF1004	23	Screw	BPZ30P100FTB	
9	Gear	AMR3418	24	Screw	JPZ20P035FNI	
10	Damper	AXA1018	25	Screw	BMZ30P060FTC	
11	Panel	See Contrast table (2)	26	Groundig Spring KU	ANG2717	B
12	Door	AAN1473				
13	Front Panel	See Contrast table (2)				
14	Door Holder L	AMR3414				
15	Door Holder R	AMR3415				

(2) CONTRAST TABLE

PDP-R05U/KUC and PRO-R05U/KUC are constructed the same except for the following:

Mark	No.	Description	PDP-R05U/KUC	PRO-R05U/KUC	
	4	Power Button	AAD4128	Not used	
	4	Power Button (UE)	Not used	AAD4129	C
	5	Front Panel Assy U	AXG1018	Not used	
	5	Front Panel Assy UE	Not used	AXG1019	
	11	Panel (U)	AAK2823	Not used	
	11	Panel (UE)	Not used	AAK2824	
	13	Front Panel (U)	AMB2826	Not used	
	13	Front Panel (UE)	Not used	AMB2827	
	17	Escutcheon Ring	AAD4130	Not used	
	17	Escutcheon Ring (UE)	Not used	AAD4132	
	18	Sealing Sheet (U)	AAL2545	Not used	
	18	Sealing Sheet (UE)	Not used	ALL2546	D
	19	Sealing Sheet S (U)	AAL2552	Not used	
	19	Sealing Sheet S (UE)	Not used	AAL2553	
	20	Pioneer Badge	VAM1124	Not used	
	20	Pioneer Badge B	Not used	PAN1376	
	21	Door Cushion	AEB1391	AEB1394	

1234

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM

3.1.1 AV BOARD ASSY

A

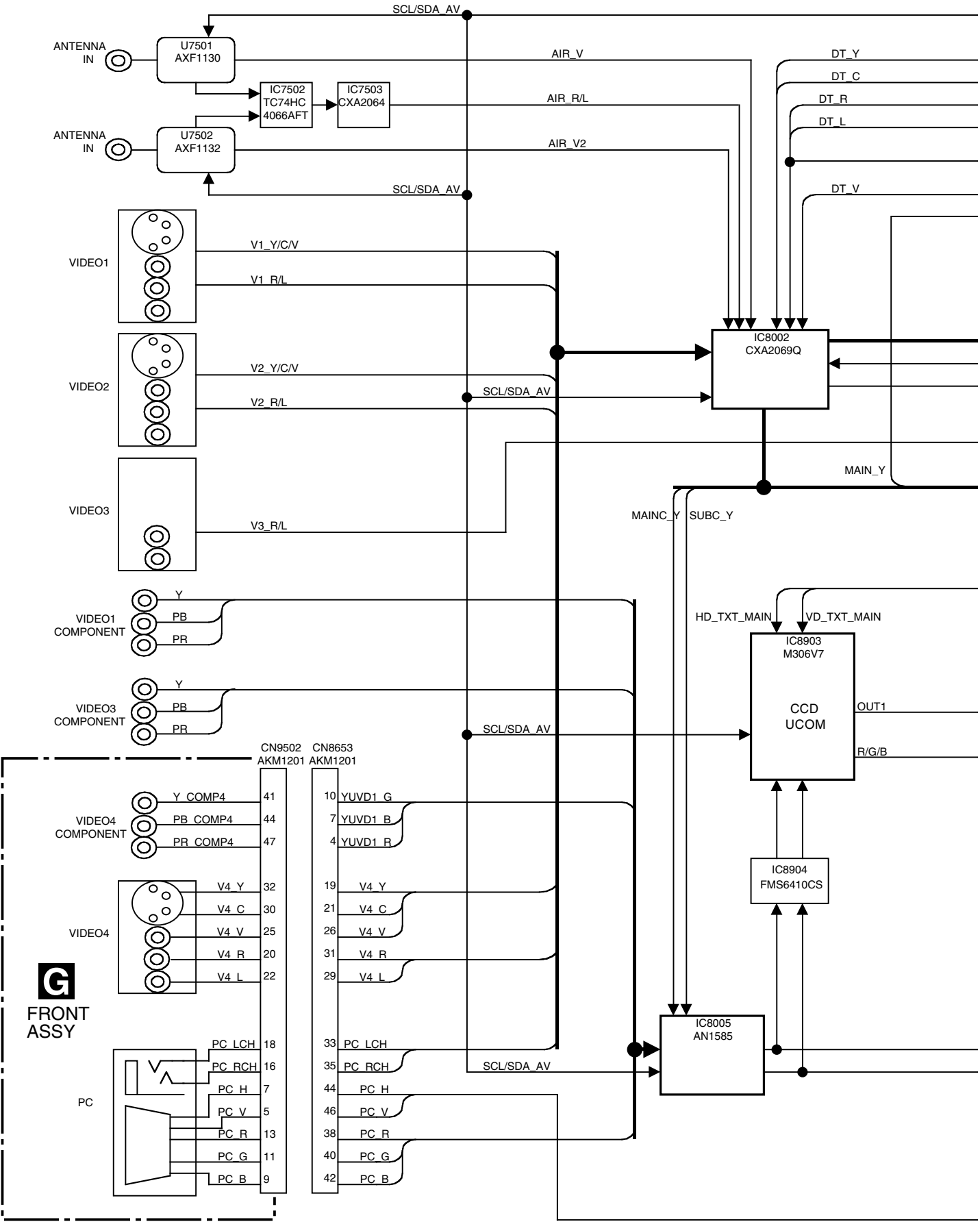
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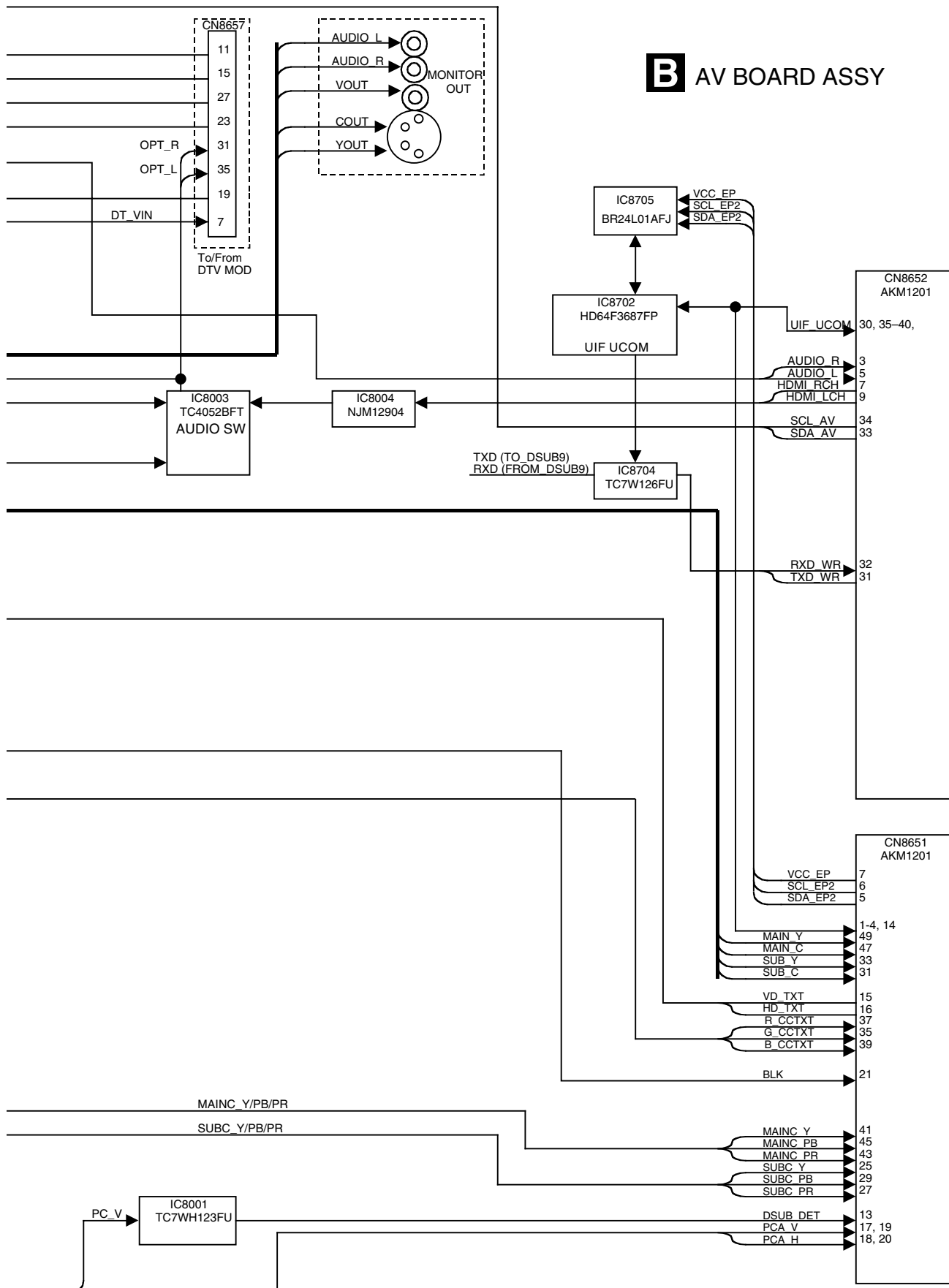
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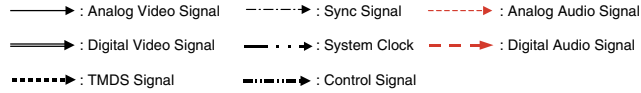


B AV BOARD ASSY



3.1.2 MR MAIN BOARD ASSY

A



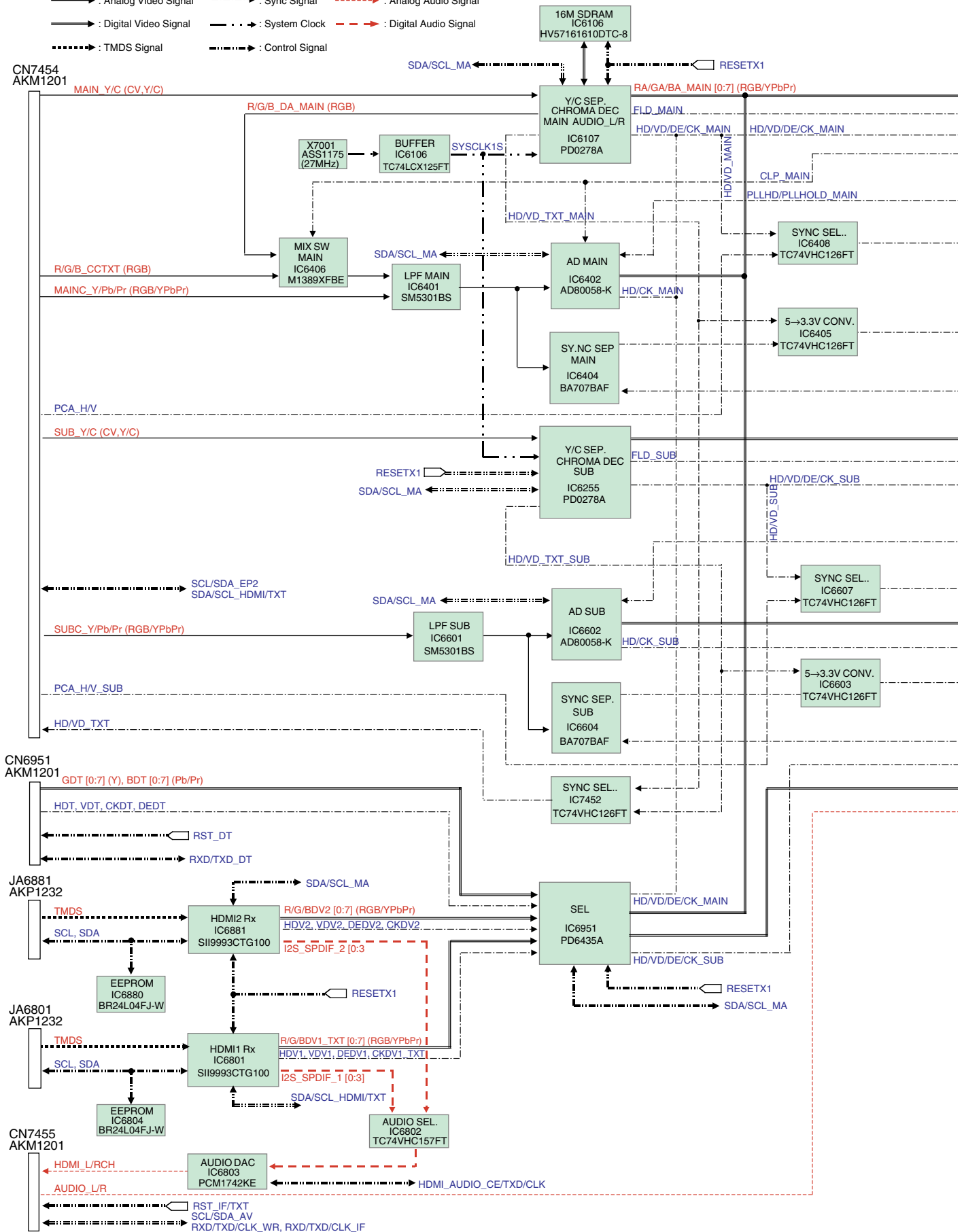
B

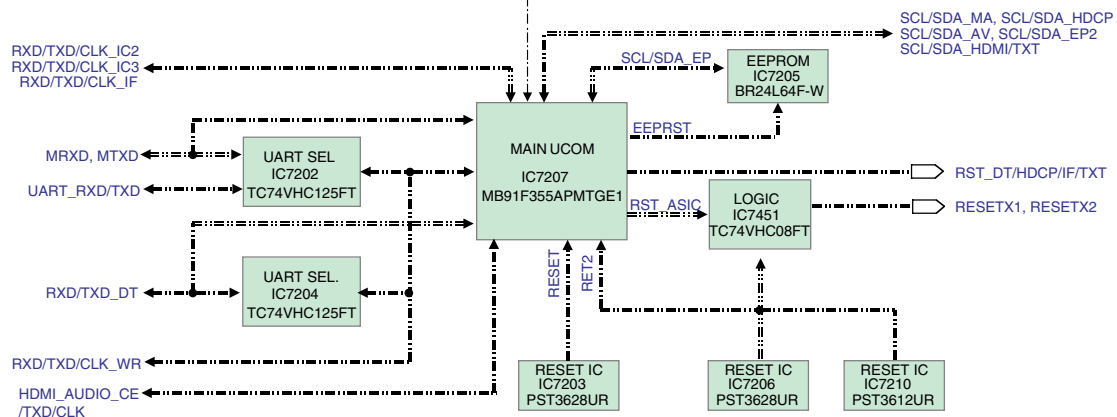
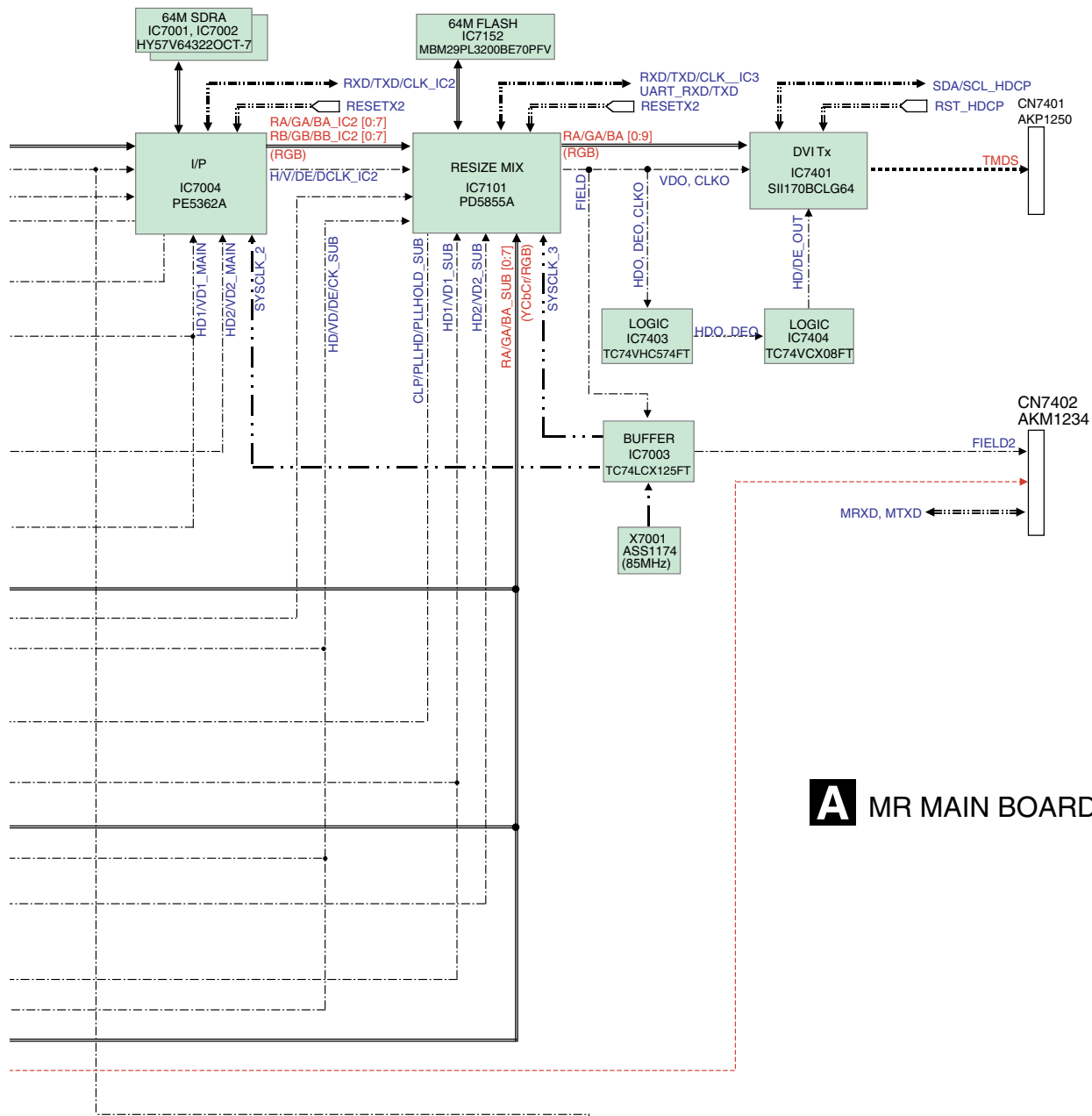
C

D

E

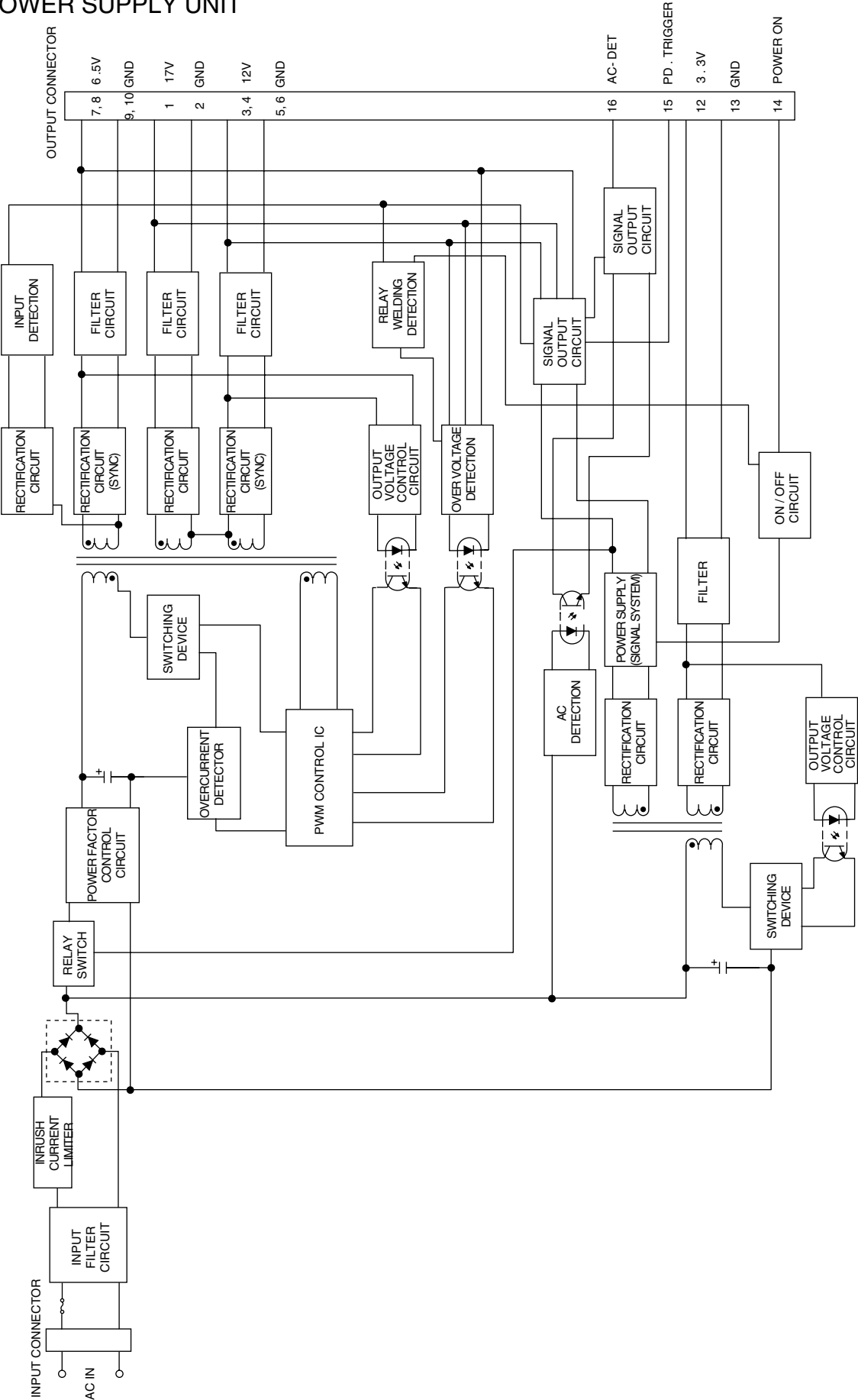
F



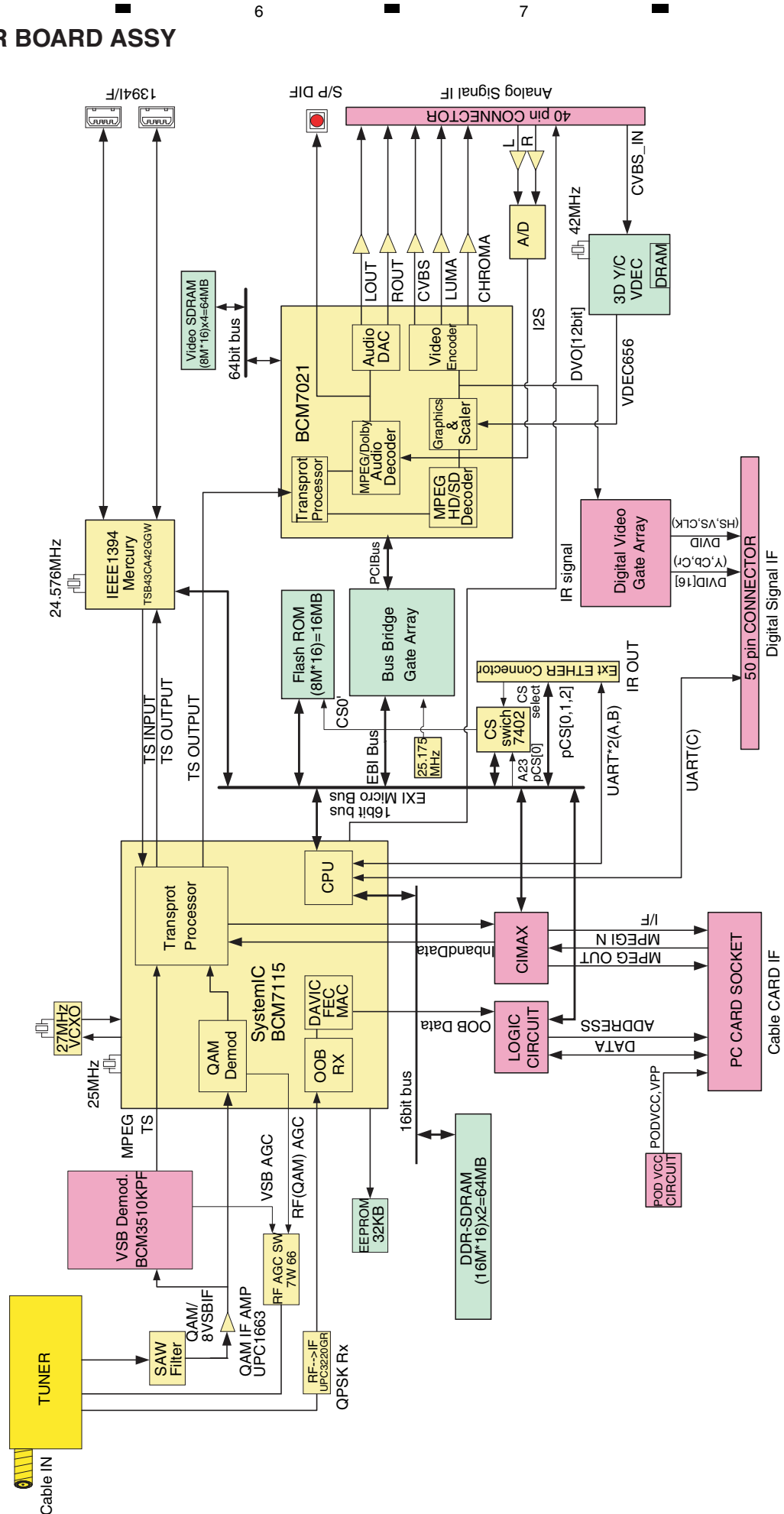


3.1.3 POWER SUPPLY UNIT

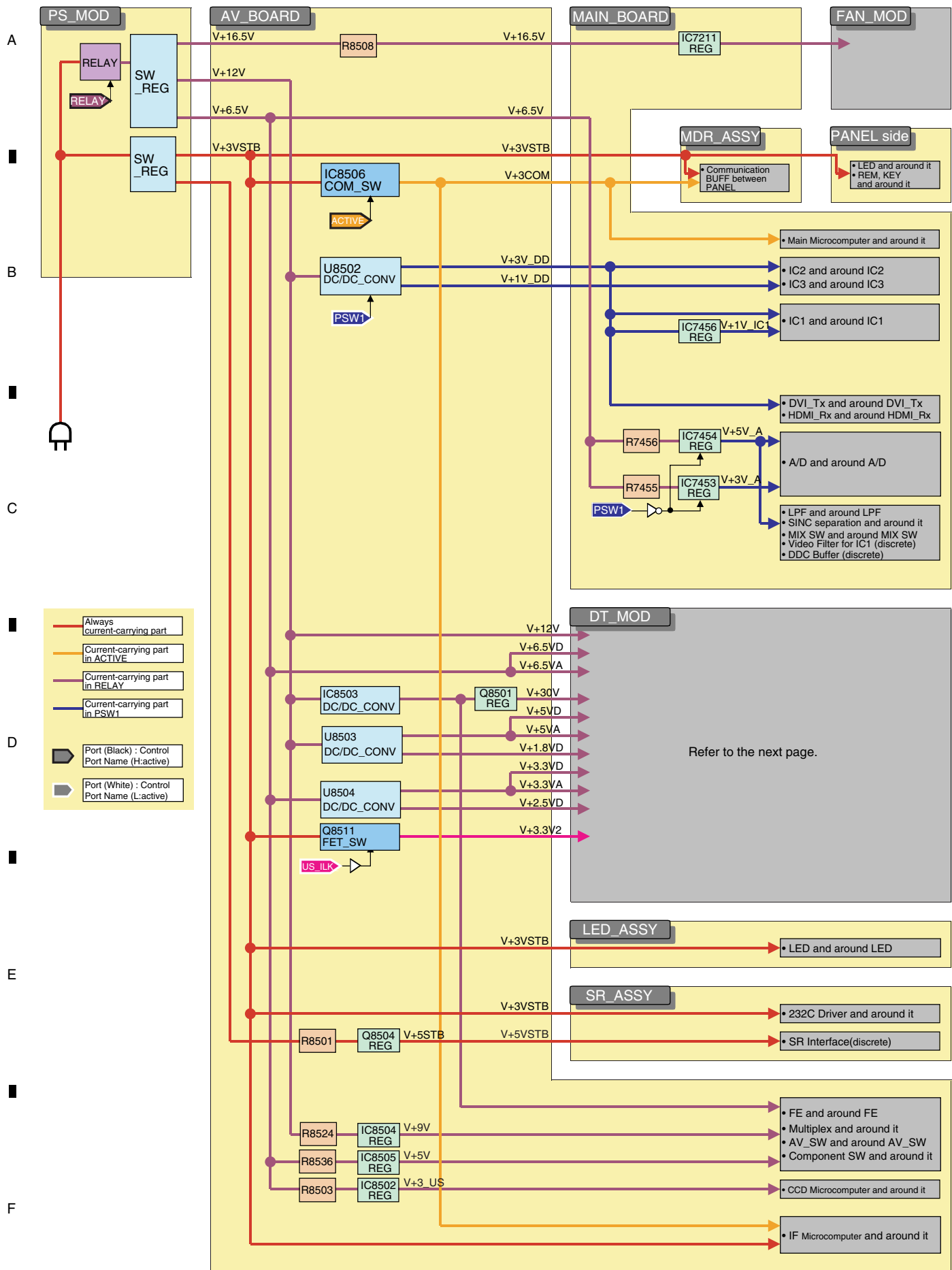
K POWER SUPPLY UNIT

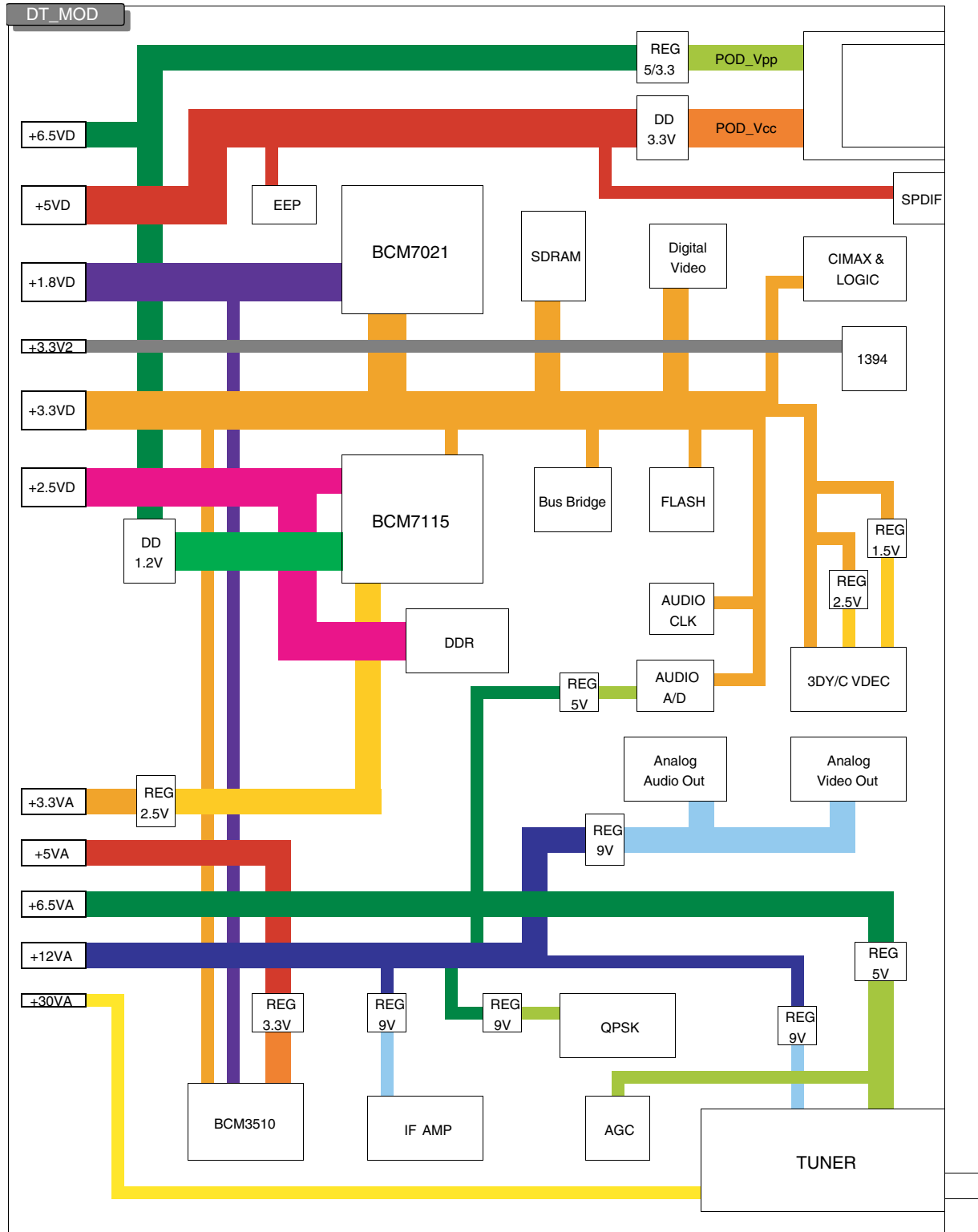


■ 5 ■

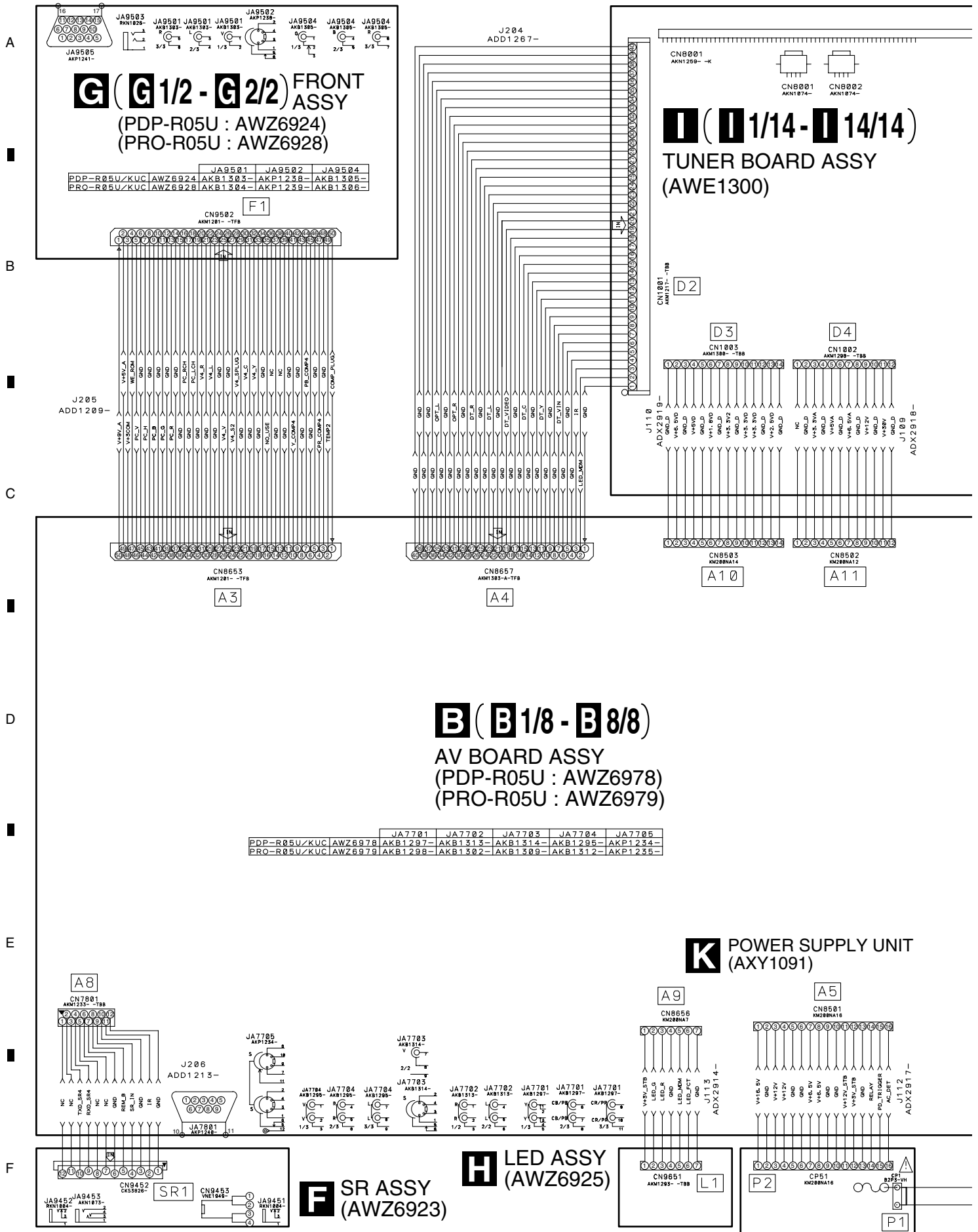


3.1.5 POWER SUPPLY





3.2 OVERALL WIRING CONNECTION DIAGRAM

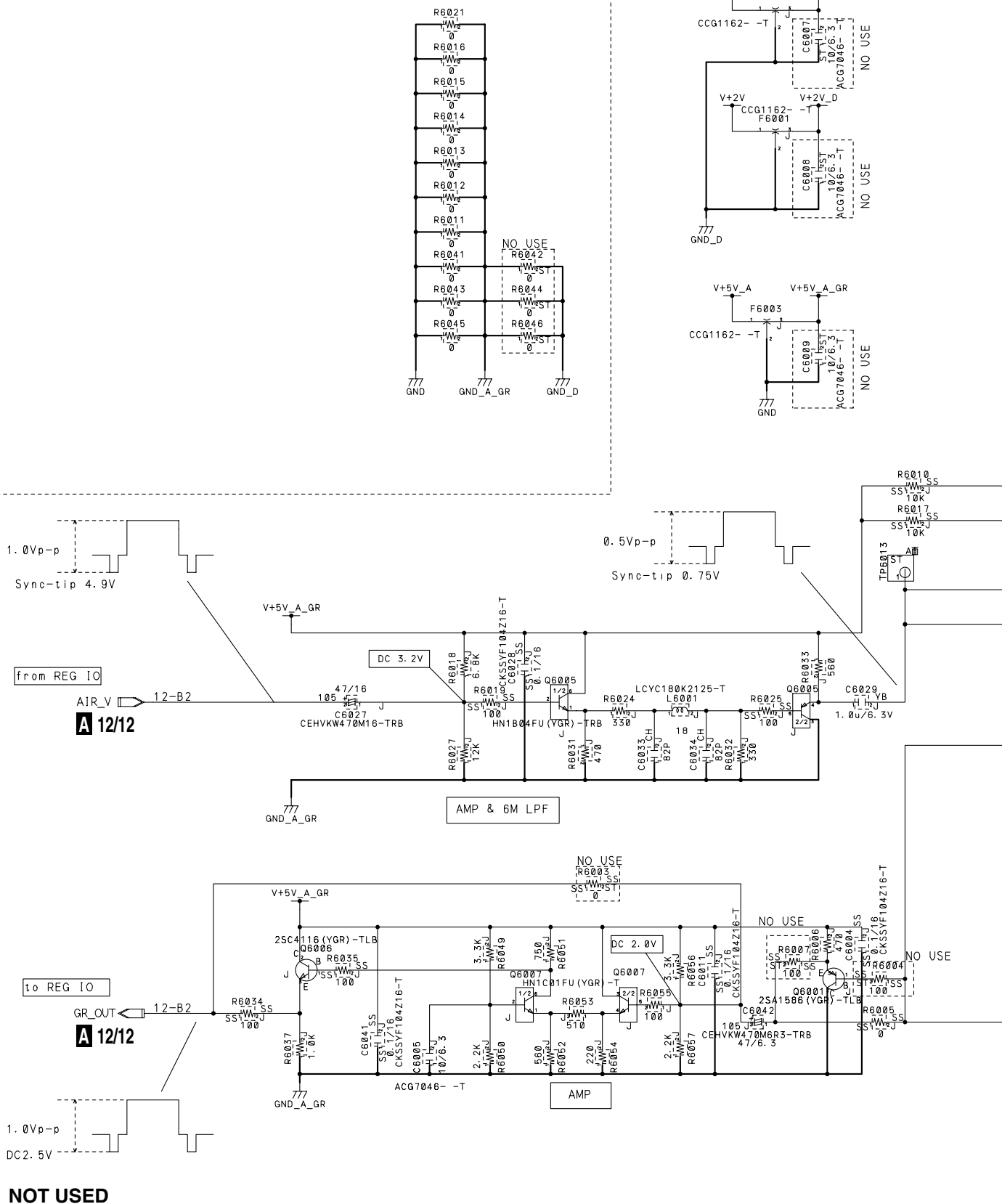


3.3 MR MAIN BOARD ASSY (1/12)

A 1/12 MR MAIN BOARD ASSY (AWZ6926)

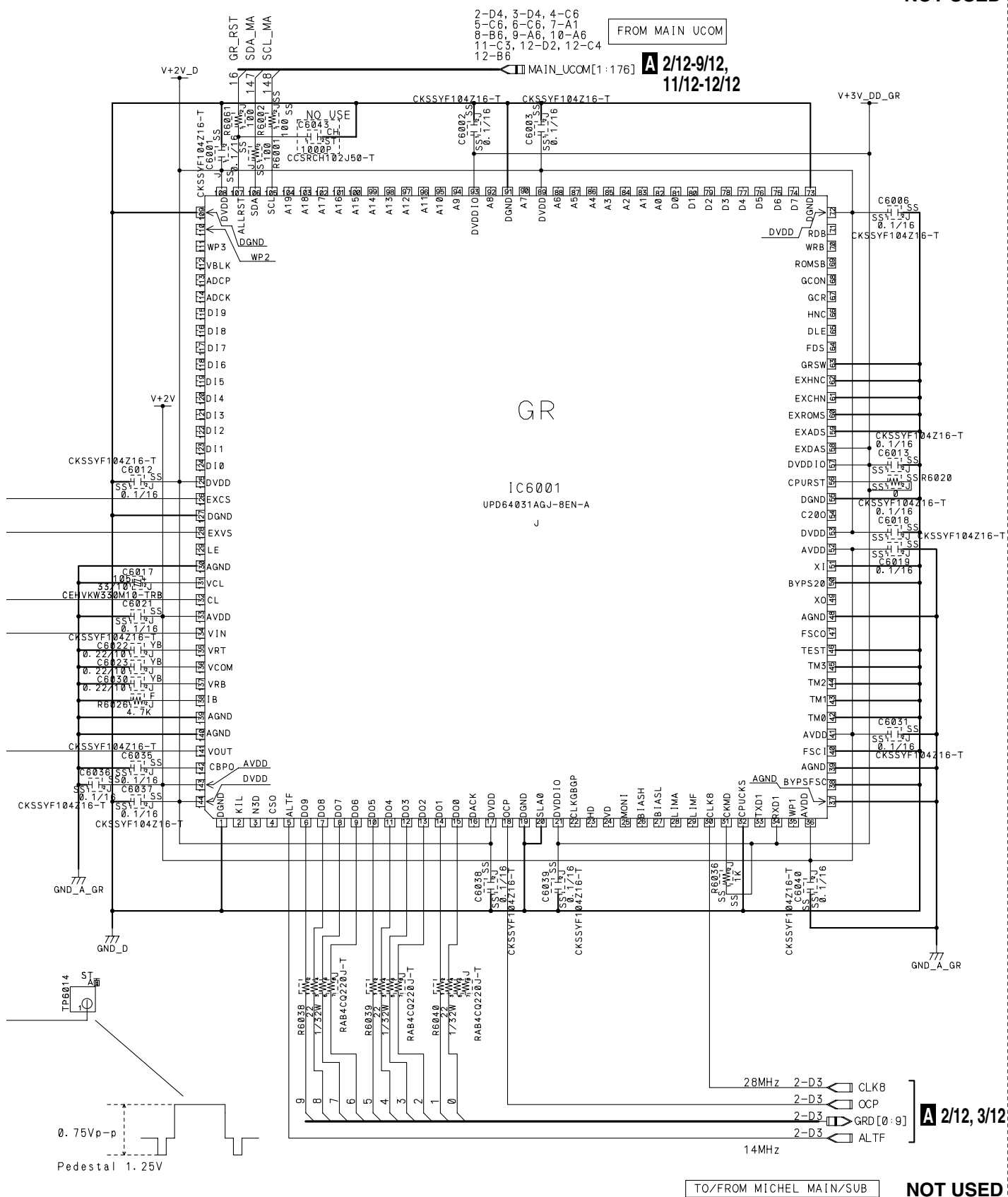
● GR BLOCK

NOT USED



A 1/12

NOT USED



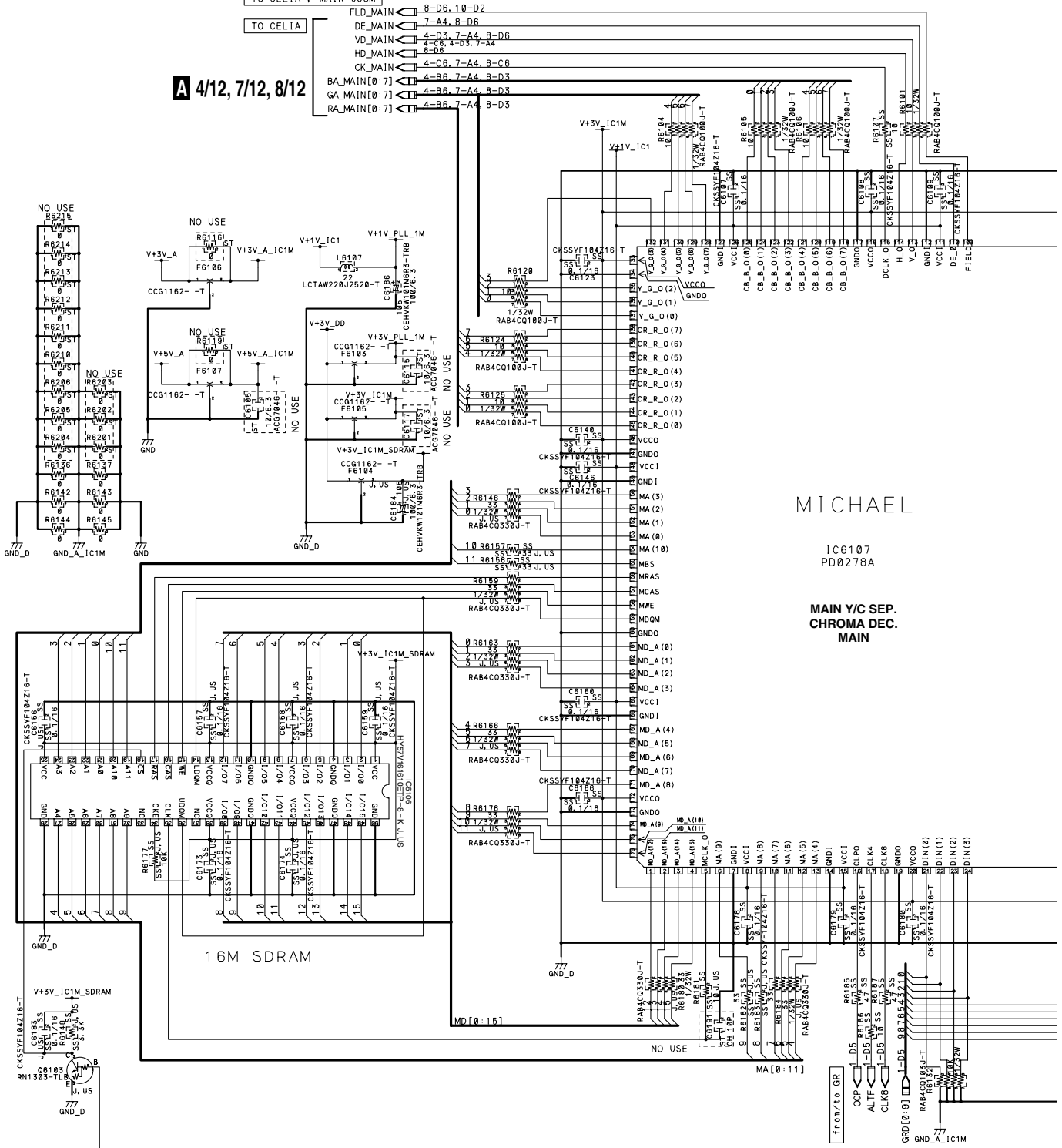
3.4 MR MAIN BOARD ASSY (2/12)

A 2/12 MR MAIN BOARD ASSY (AWZ6926)
● MICHEL MAIN BLOCK

A 8/12, 10/12

TO CELIA , MAIN UCOM
TO CELIA

A 4/12, 7/12, 8/12



MICHAEL

IC6107
PD0278A

MAIN Y/C SEP.
CHROMA DEC.
MAIN

A 1/12



● **AD MAIN BLOCK**



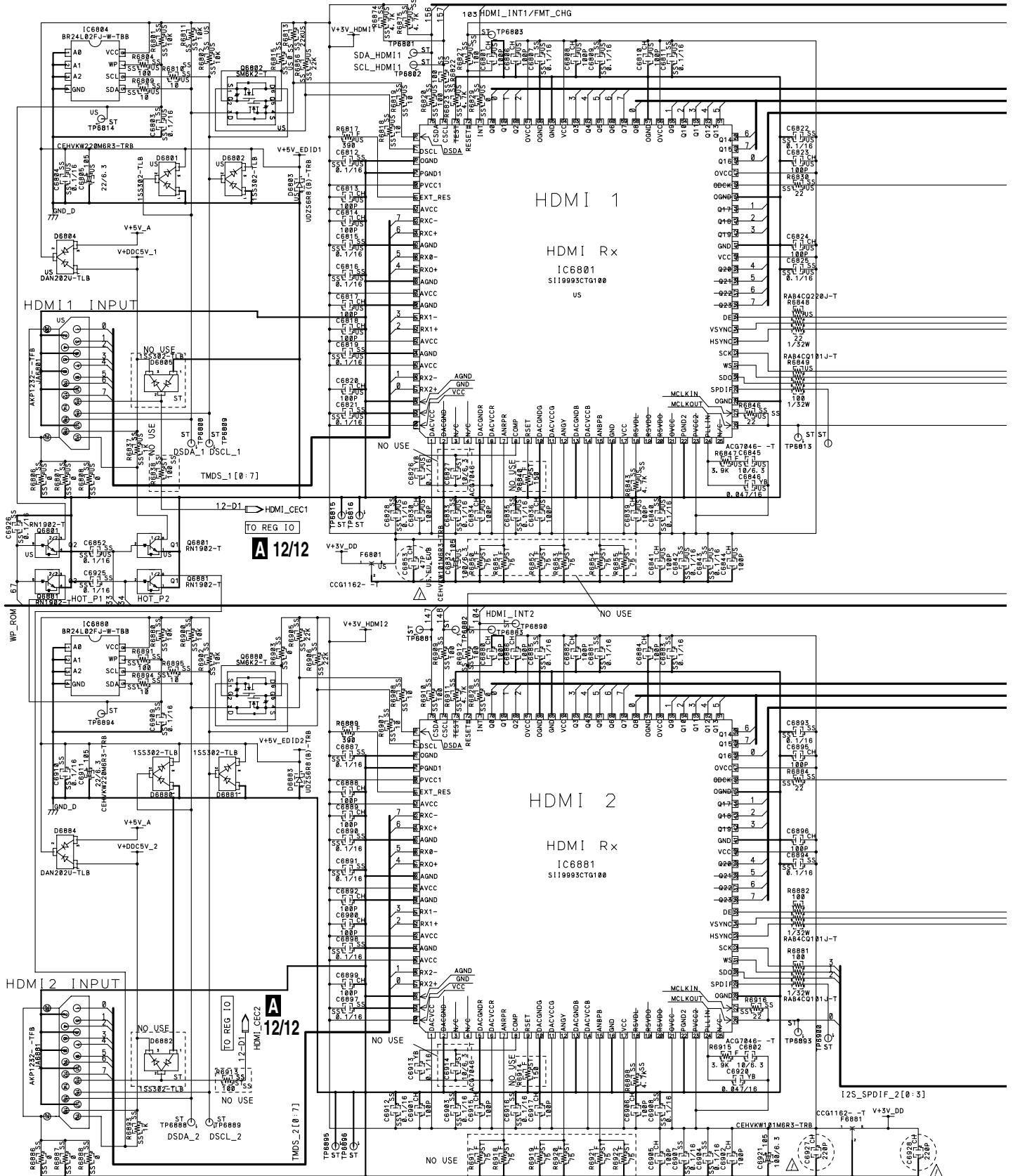




3.8 MR MAIN BOARD ASSY (6/12)

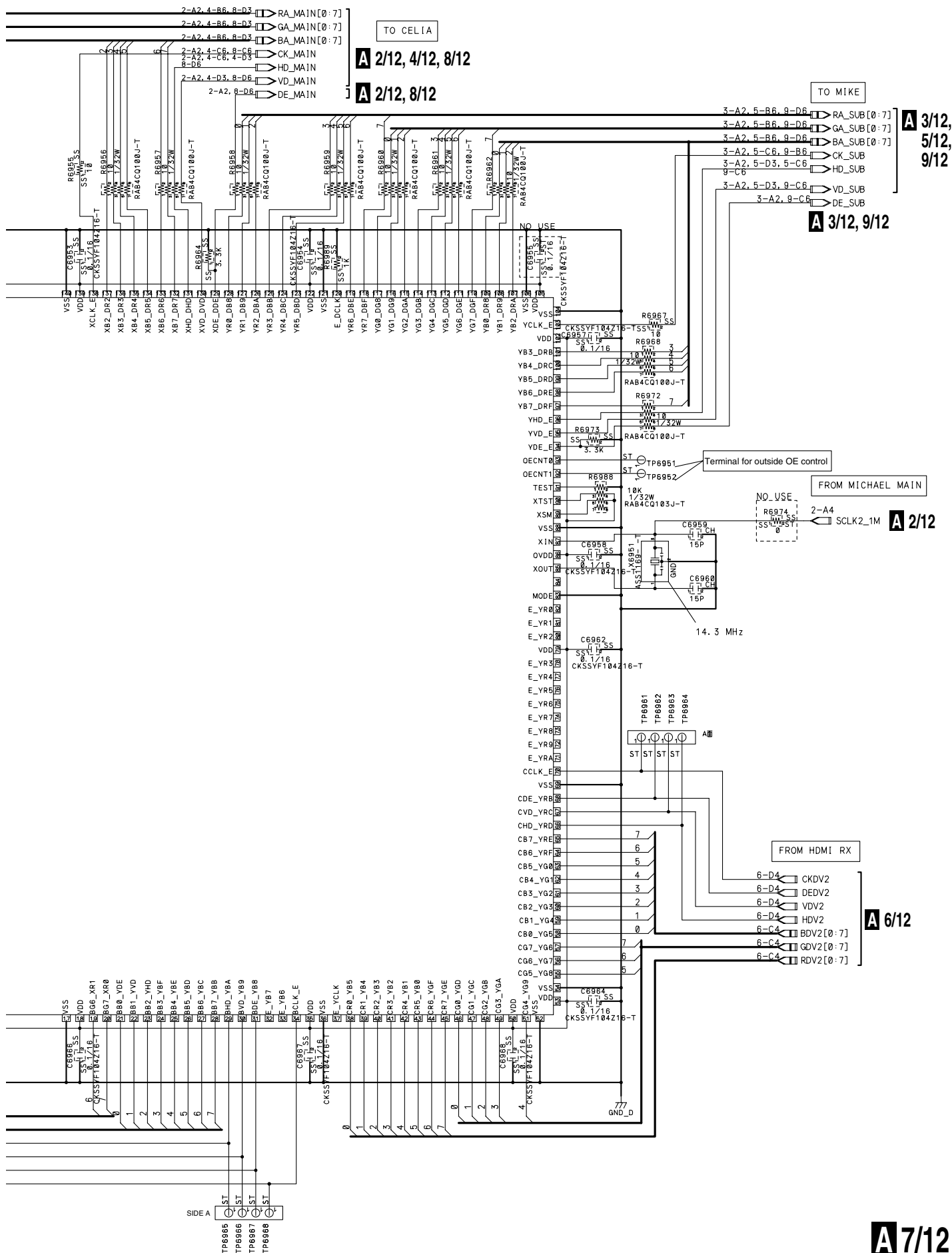
A 6/12 MR MAIN BOARD ASSY (AWZ6926)

● HDMI RX BLOCK

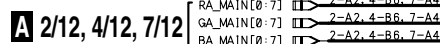


A 6/12





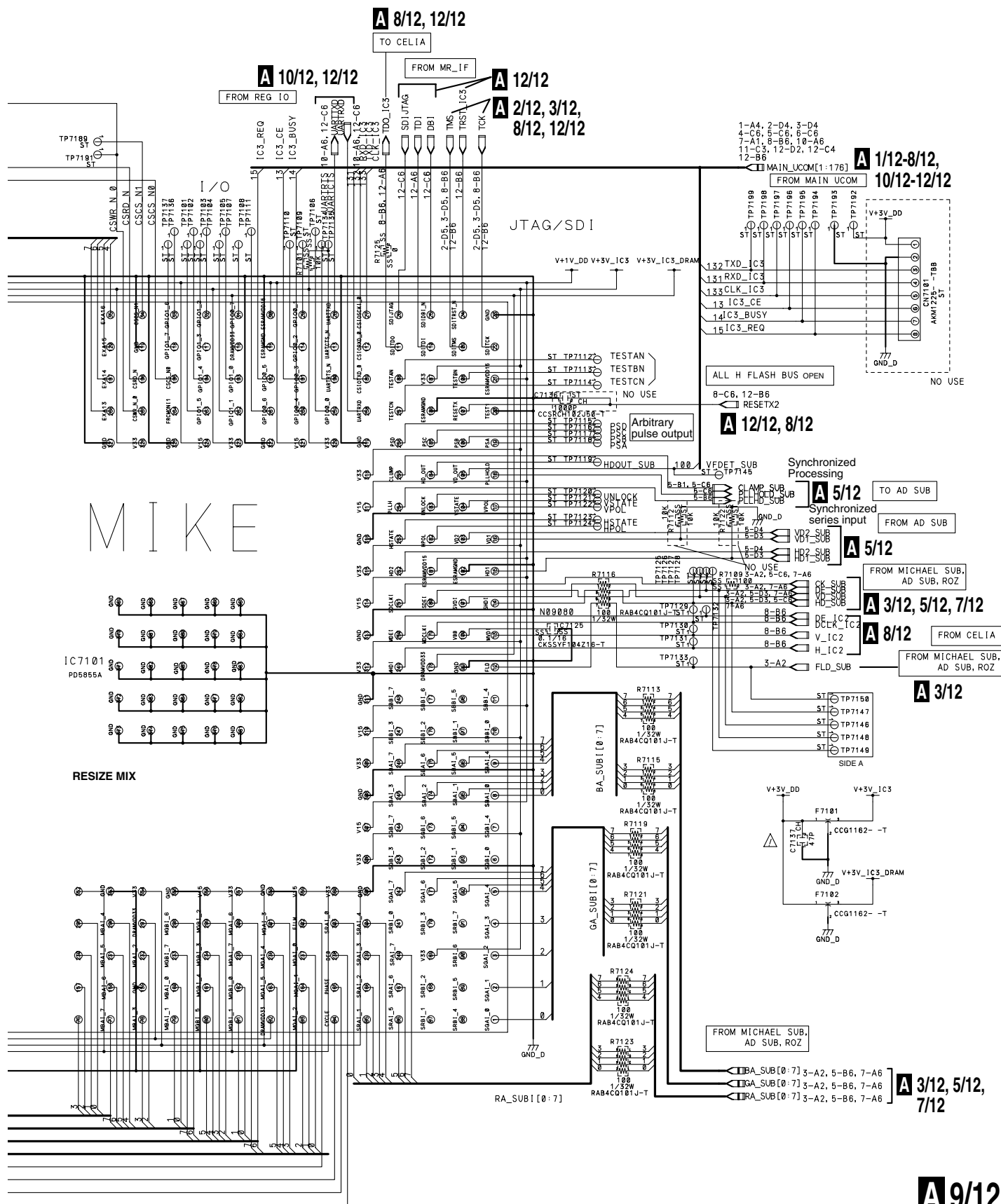
● CELIA BLOCK



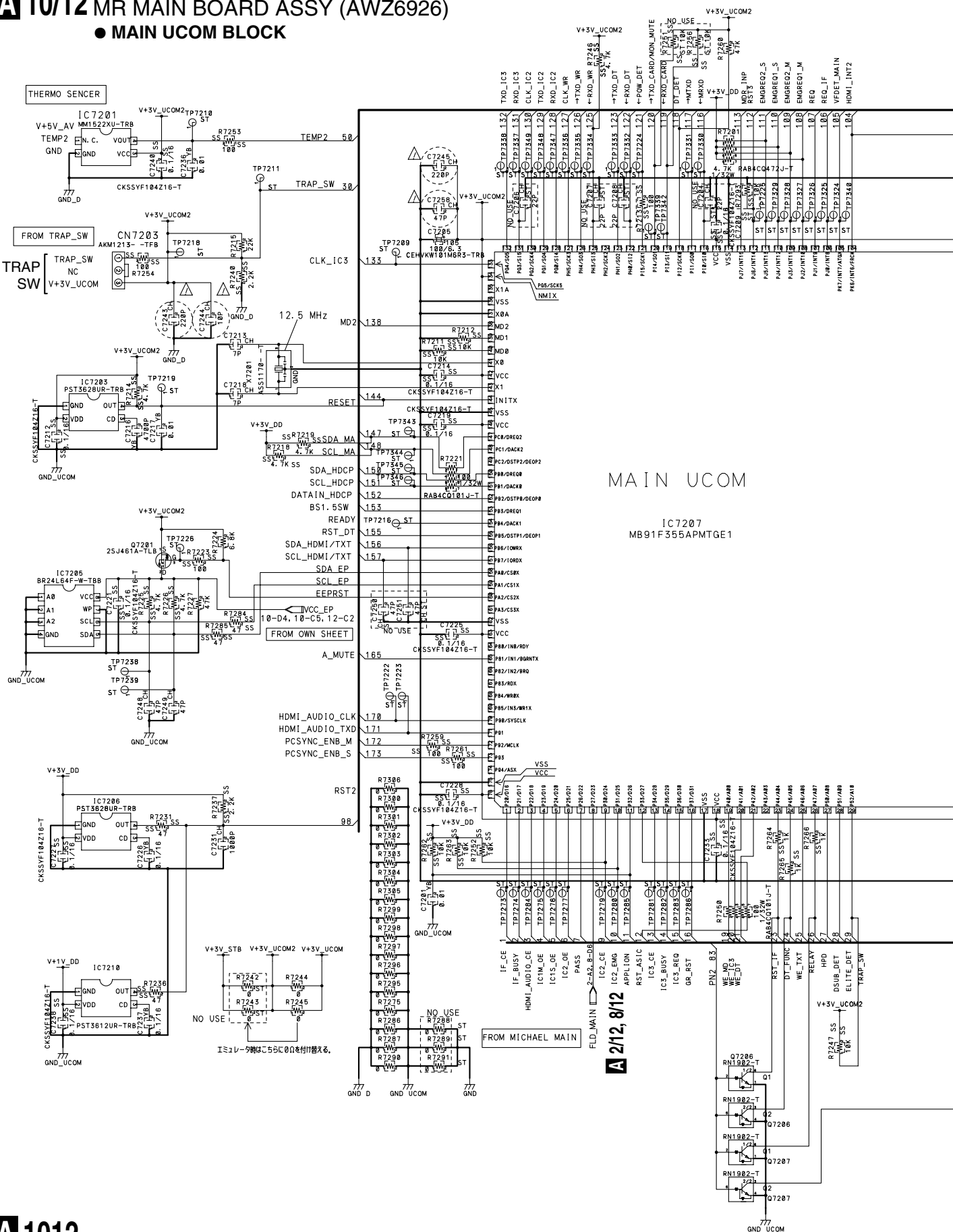
A 8/12



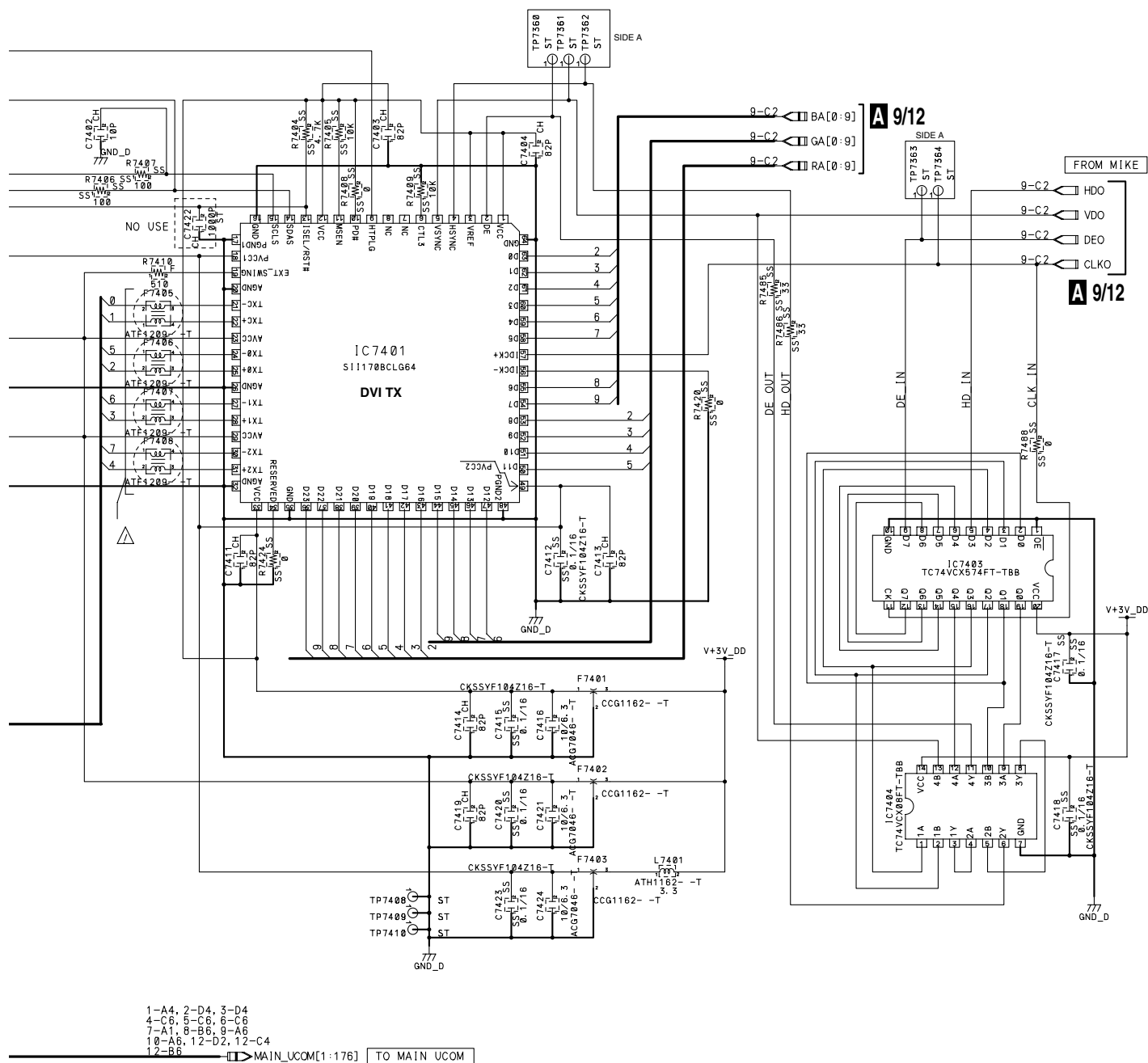
A 8/12



● MAIN UCOM BLOCK





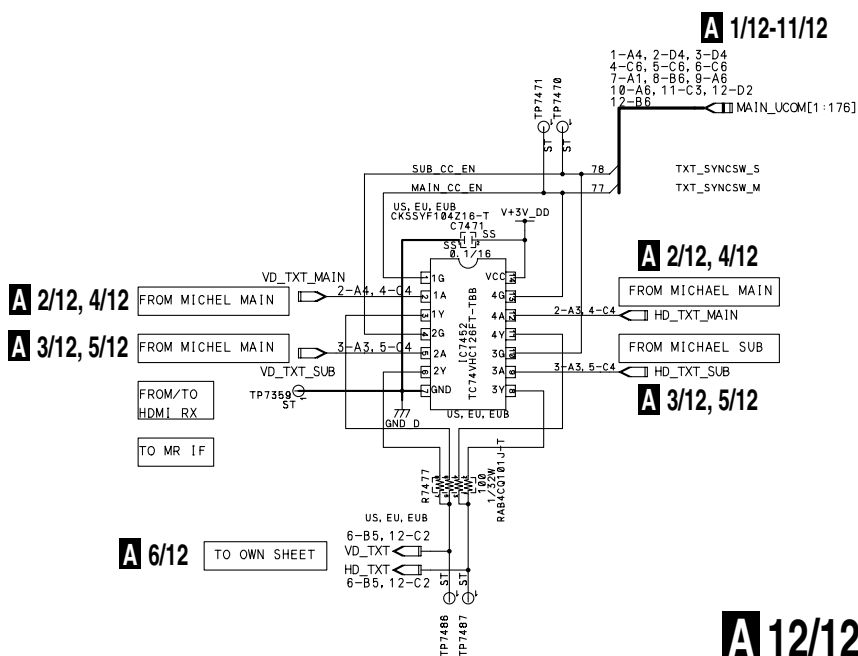
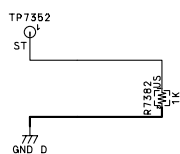
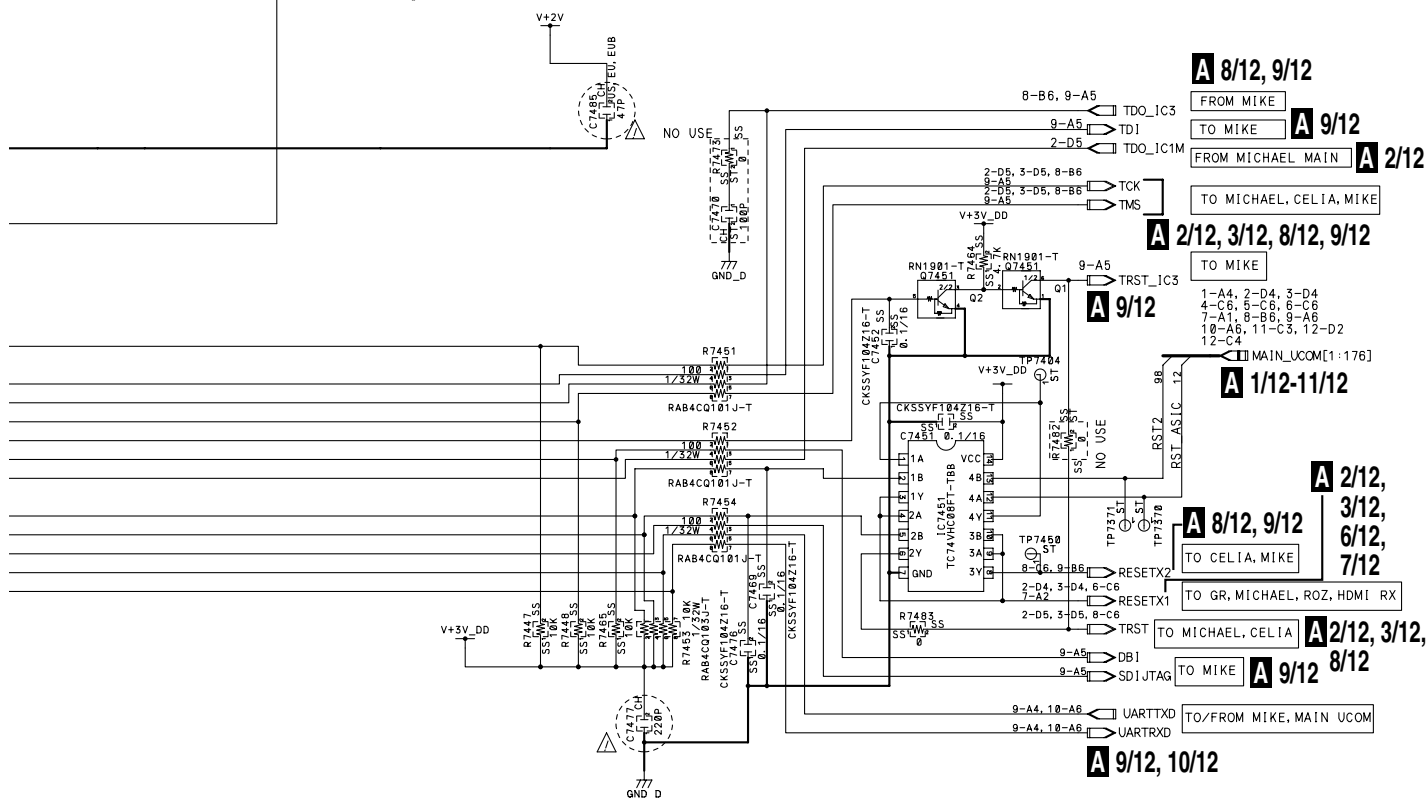
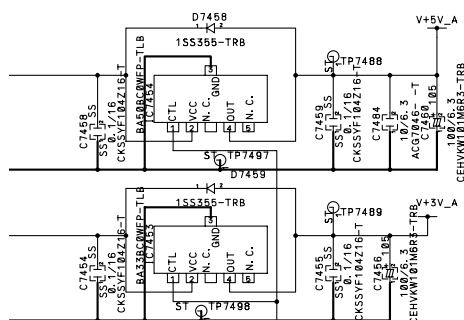


A 1/12-10/12,
12/12

A 11/12

A 12/12 MR MAIN BOARD ASSY (AWZ6926)
● REGULATOR BLOCK

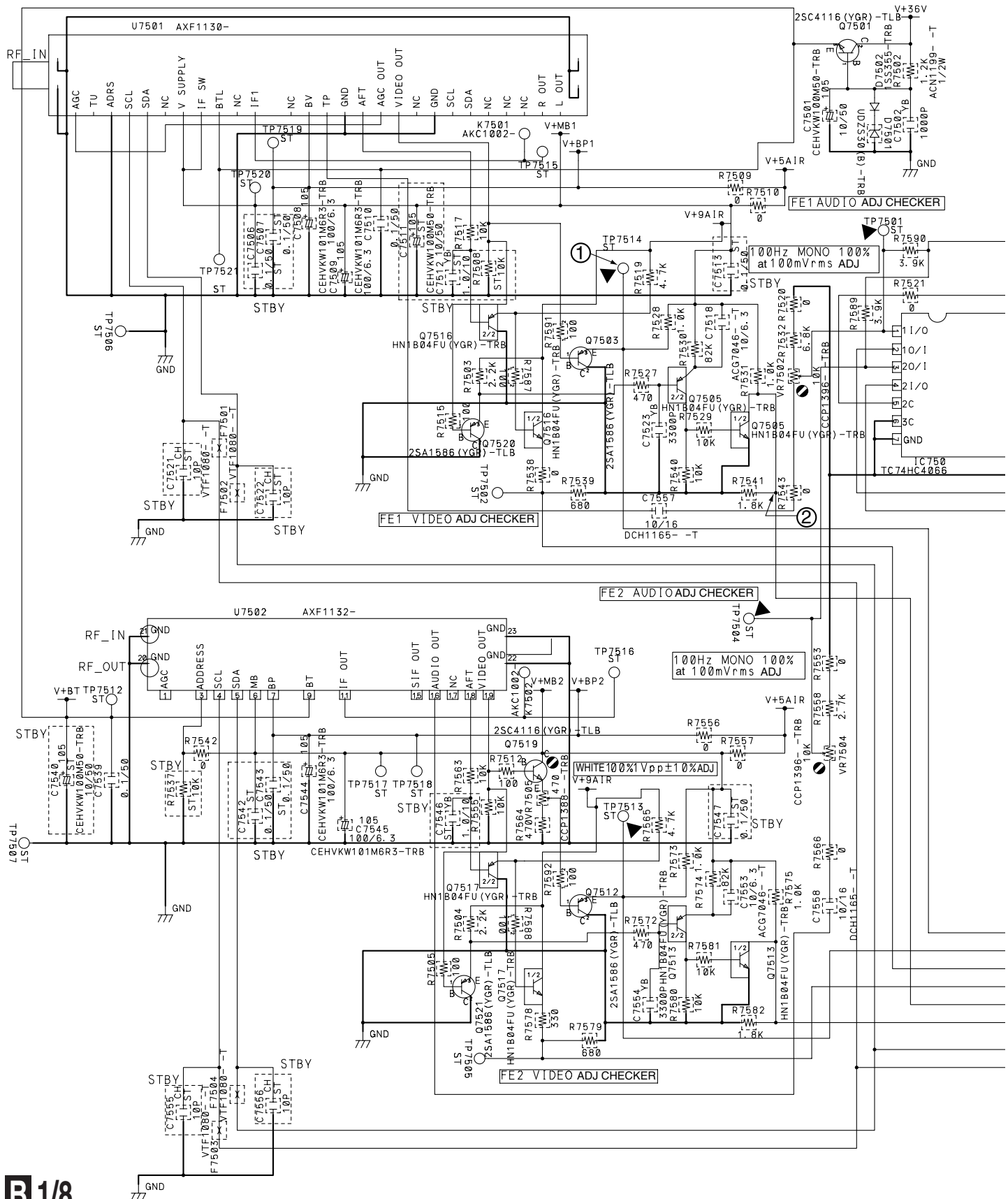




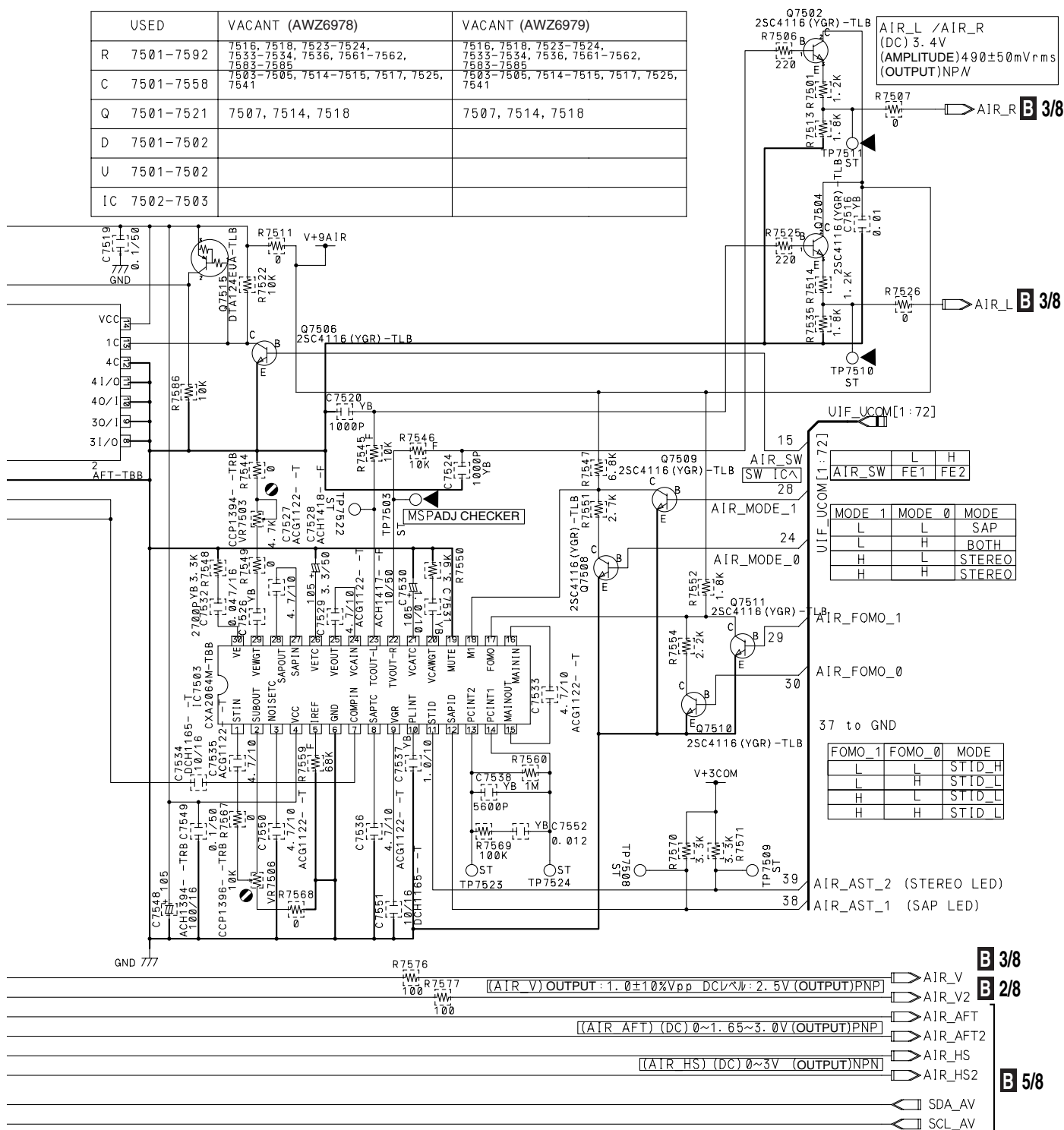
3.15 AV BOARD ASSY (1/8)

B1/8 AV BOARD ASSY (PDP-R05U : AWZ6978) (PRO-R05U : AWZ6979)

● TUNER BLOCK



USED	VACANT (AWZ6978)	VACANT (AWZ6979)
R 7501-7592	7516, 7518, 7523-7524, 7533-7534, 7536, 7561-7562, 7583-7585	7516, 7518, 7523-7524, 7533-7534, 7536, 7561-7562, 7583-7585
C 7501-7558	7503-7505, 7514-7515, 7517, 7525, 7541	7503-7505, 7514-7515, 7517, 7525, 7541
Q 7501-7521	7507, 7514, 7518	7507, 7514, 7518
D 7501-7502		
U 7501-7502		
IC 7502-7503		



B 2/8

A

AWZ6979



3.17 AV BOARD ASSY (3/8)

B 3/8 AV BOARD ASSY (PDP-R05U : AWZ6978) (PRO-R05U : AWZ6979)

● AV SW BLOCK

A

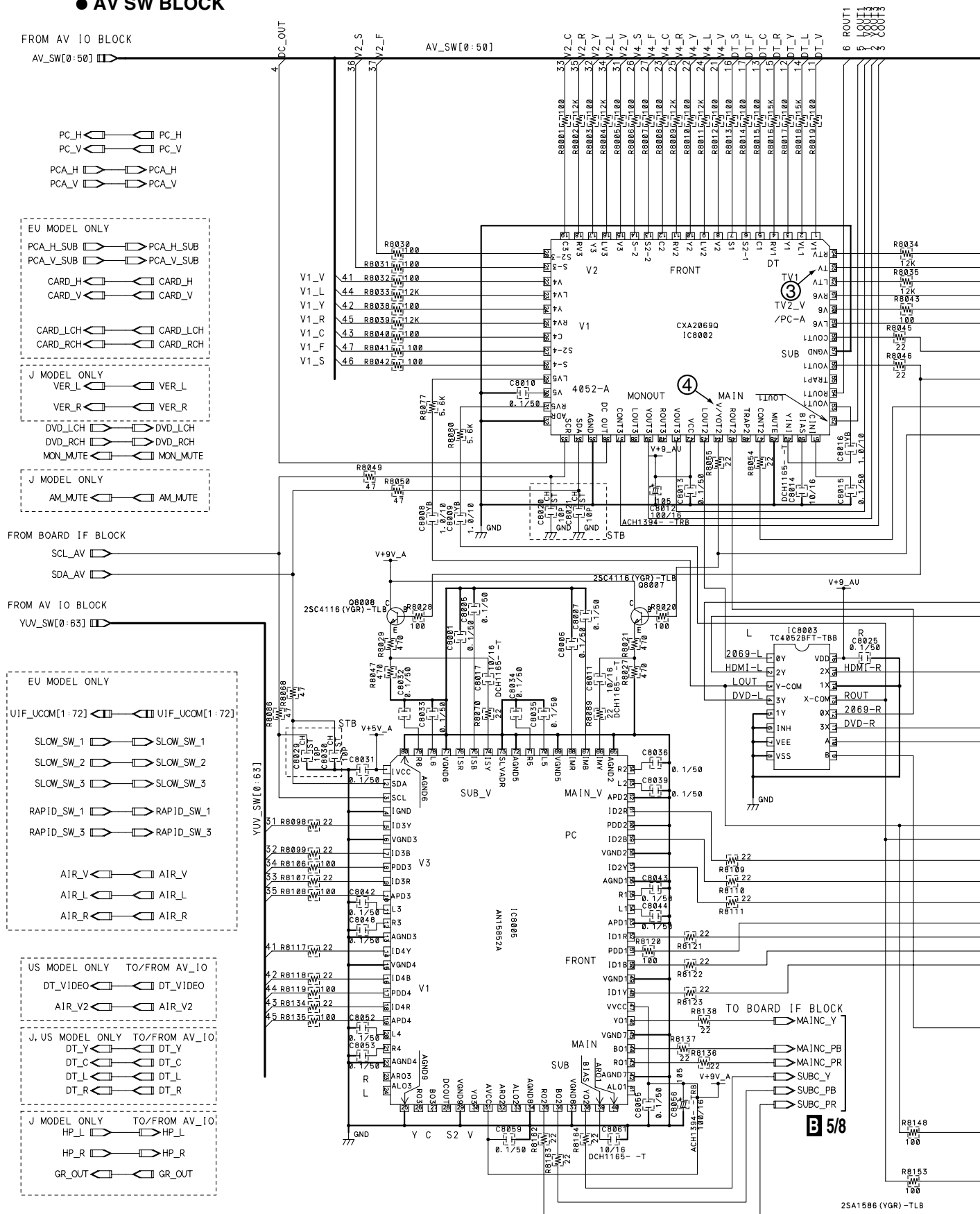
B

C

D

E

F



B 3/8

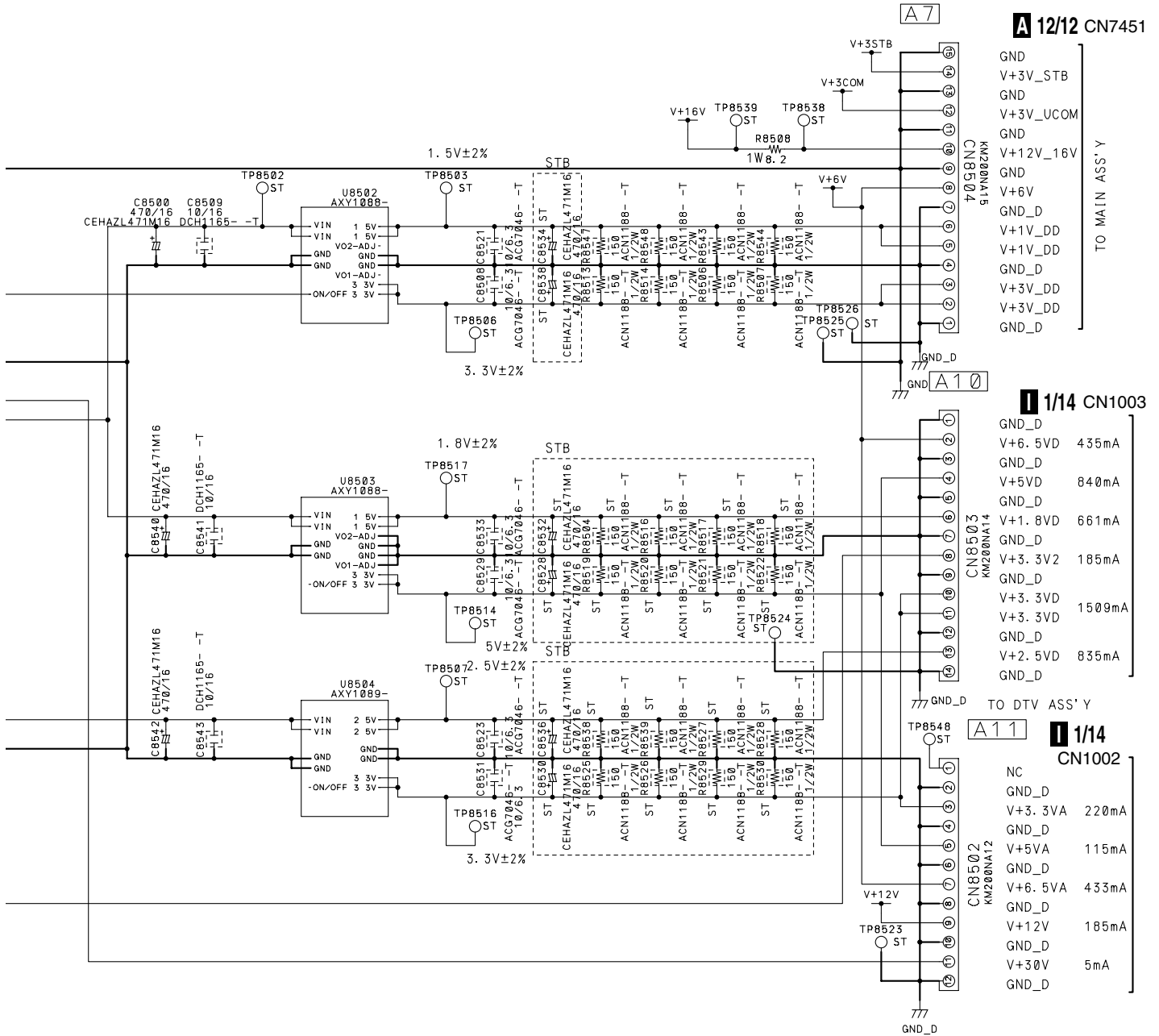


4



B 4/8 AV BOARD ASSY (PDP-R05U : AWZ6978) (PRO-R05U : AWZ6979)

● AV REG BLOCK



	USED	VACANT (AWZ6978)	VACANT (AWZ6979)
R	8501-8554	8505, 8532-8535, 8537, 8540-8542, 8545-8546, 8549-8553	8505, 8532-8535, 8537, 8540-8542, 8545-8546, 8549-8553
C	8500-8554	8535, 8537, 8539, 8544-8550	8535, 8537, 8539, 8544-8550
Q	8501-8511	8505-8510	8505-8510
D	8501-8512	8504, 8506-8507, 8510-8511	8504, 8506-8507, 8510-8511
U	8502-8504		
IC	8502-8506		
CN	8501-8504		

3.19 AV BOARD ASSY (5/8)

B 5/8 AV BOARD ASSY (PDP-R05U : AWZ6978) (PRO-R05U : AWZ6979)

● BOARD IF BLOCK

A

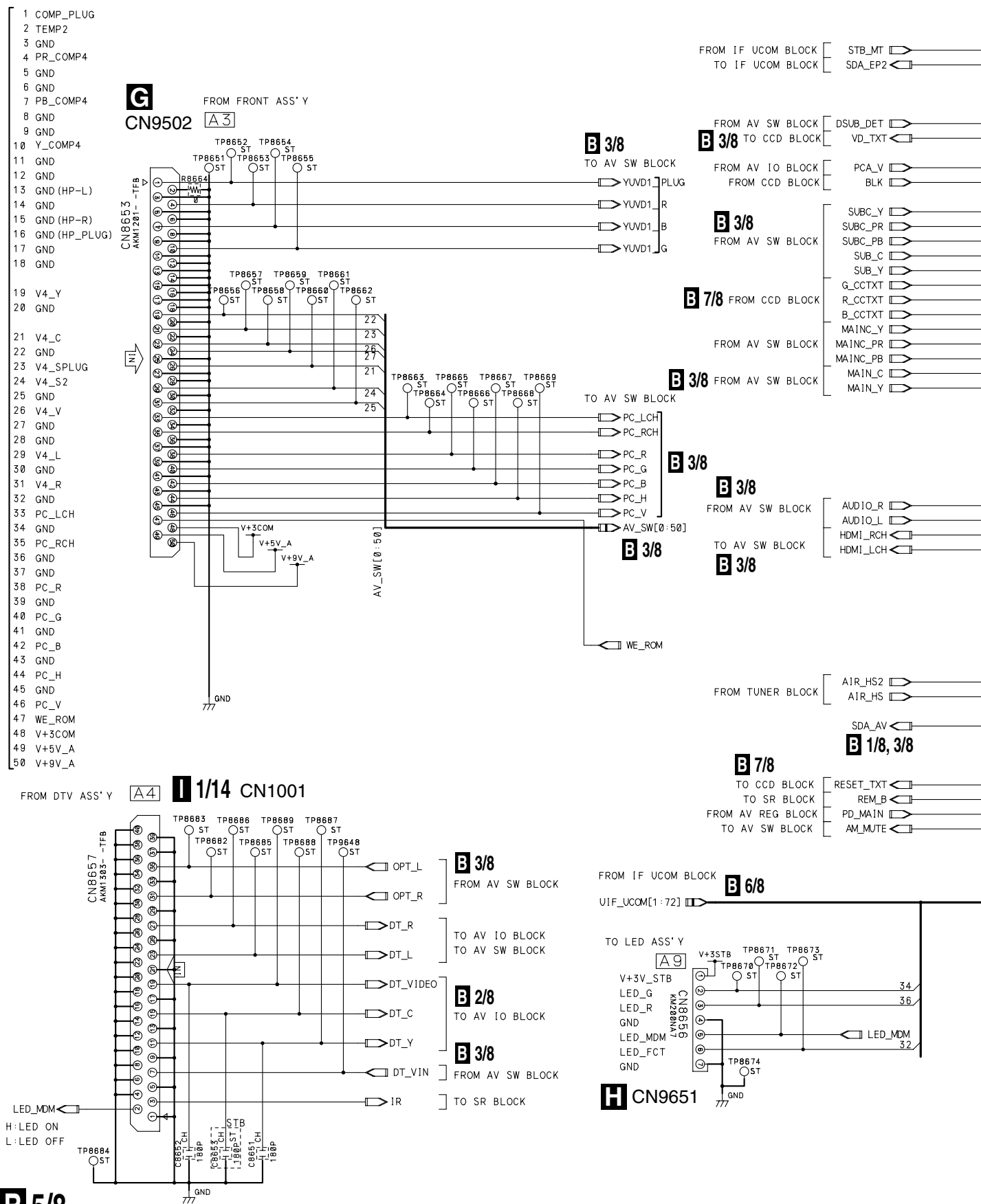
B

C

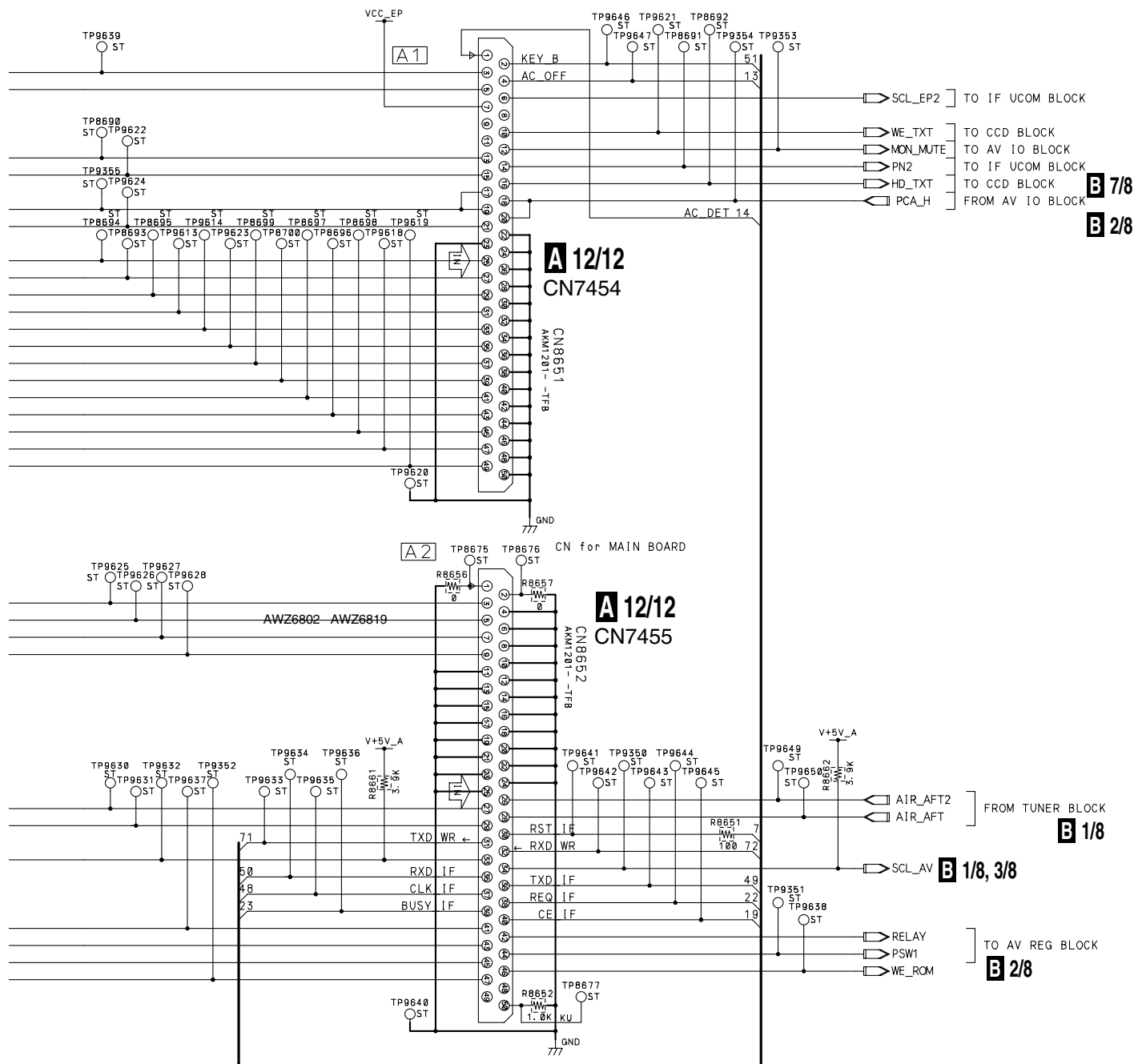
D

E

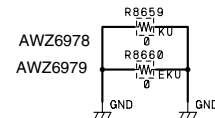
F



B 5/8



ELITE DET	AWZ6978	AWZ6979
R8652	1 kΩ	Not used



	USED	VACANT (AWZ6978)	VACANT (AWZ6979)
R	8651-8664	8653-55, 8658, 8660, 8663	8652-55, 8658-8659, 8663
C	8651-8653		
CN	8651-8657	8654-8655	8654-8655

3.20 AV BOARD (6/8) and SW ASSYS

B 6/8 AV BOARD ASSY (PDP-R05U : AWZ6978) (PRO-R05U : AWZ6979)

● IF UCOM BLOCK

A

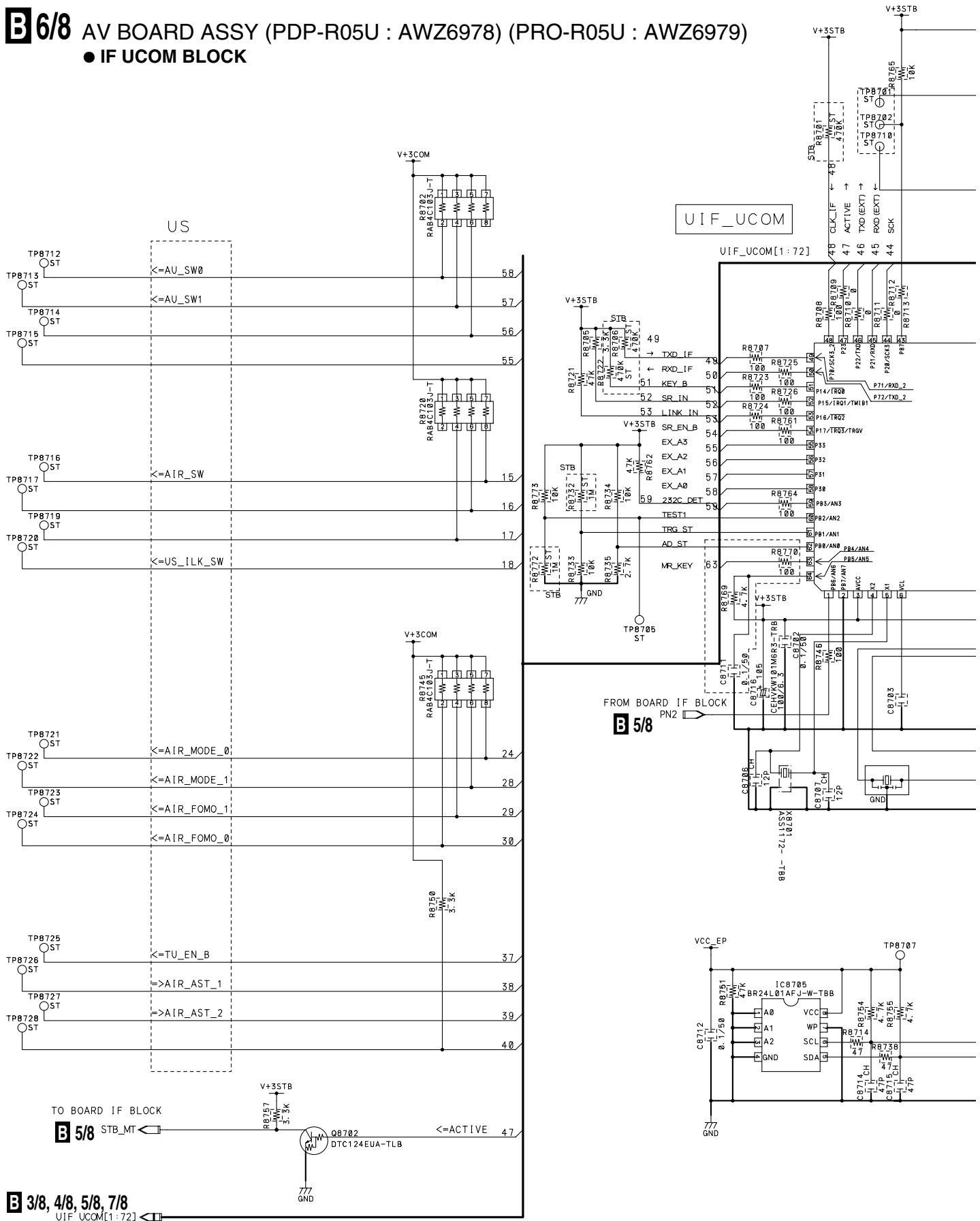
B

C

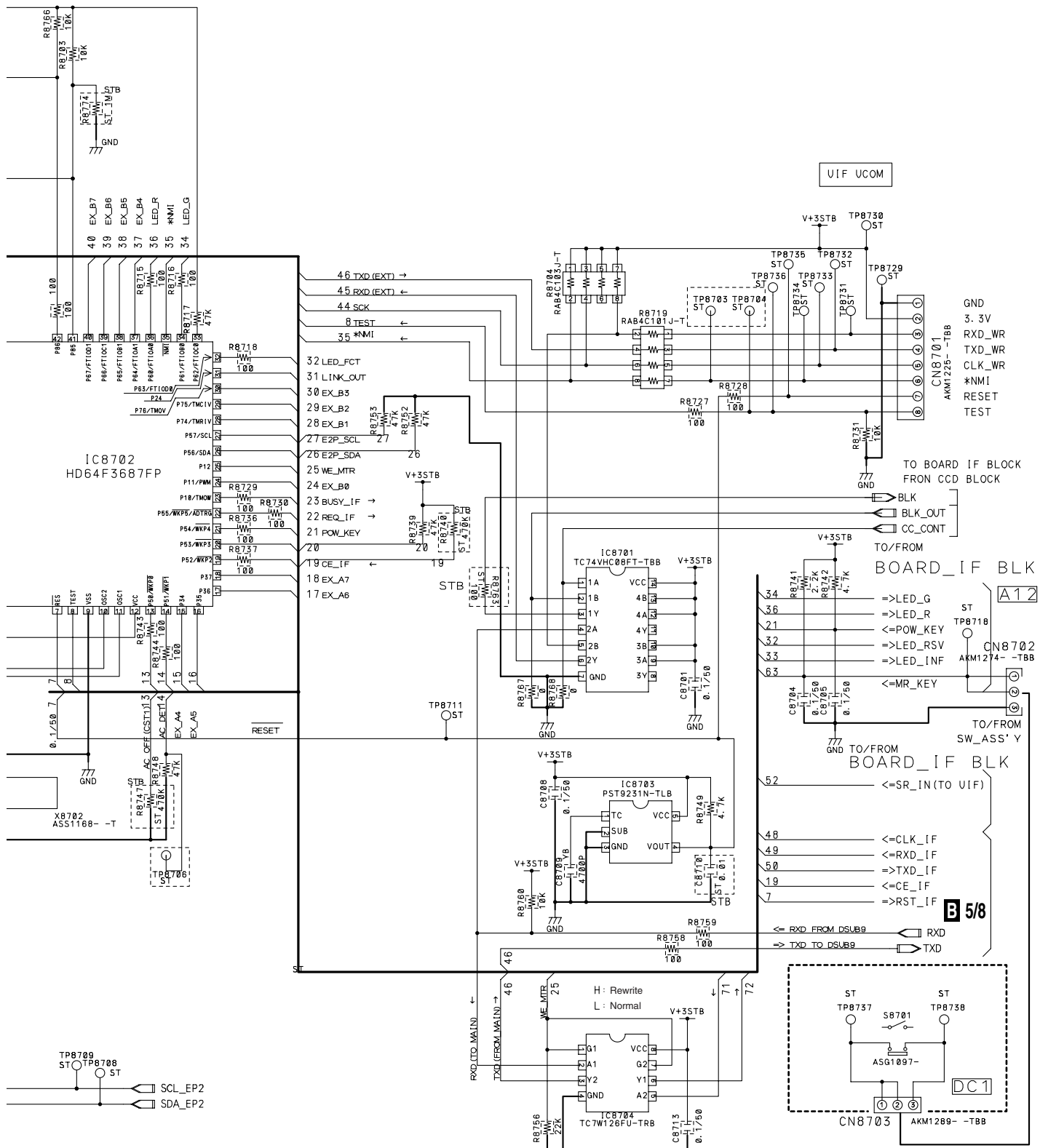
D

E

F



B 6/8



	USED	VACANT (AWZ6978)	VACANT (AWZ6979)
R	8701-8774	8771	8771
C	8701-8716		
Q	8702		
D			
X	8701-8702		
IC	8701-8705		
CN	8701		

J SW ASSY
(AWZ6977)

B 6/8 J

3.21 AV BOARD ASSY (7/8)

B 7/8 AV BOARD ASSY (PDP-R05U : AWZ6978) (PRO-R05U : AWZ6979)

● CCD BLOCK

B 6/8

FROM IF UCOM BLOCK

UIF_UCOM[1:72]

RXD_TXT →

TXD_TXT ←

TO IF UCOM BLOCK

CC_CONT

B 5/8

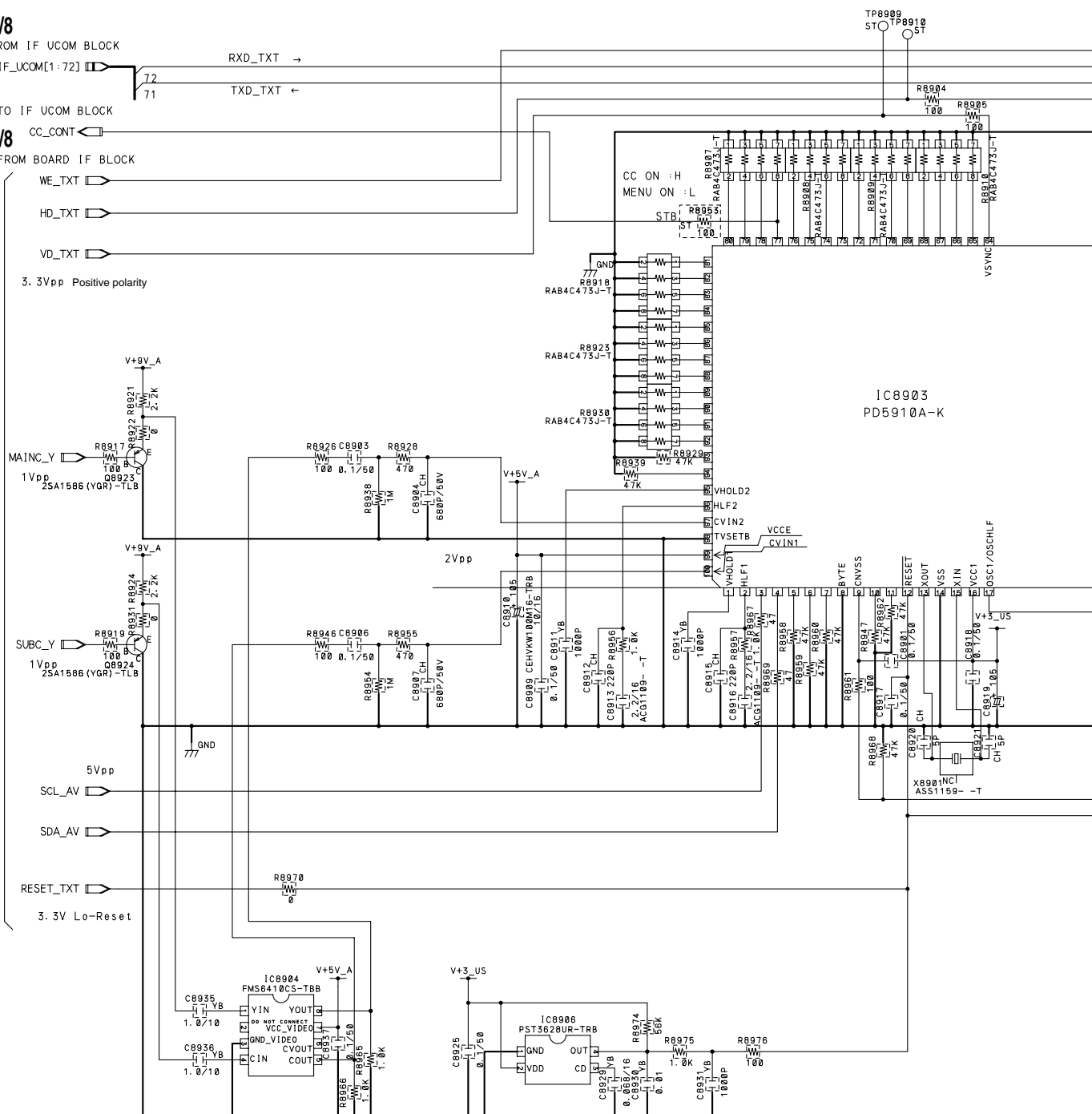
FROM BOARD IF BLOCK

WE_TXT

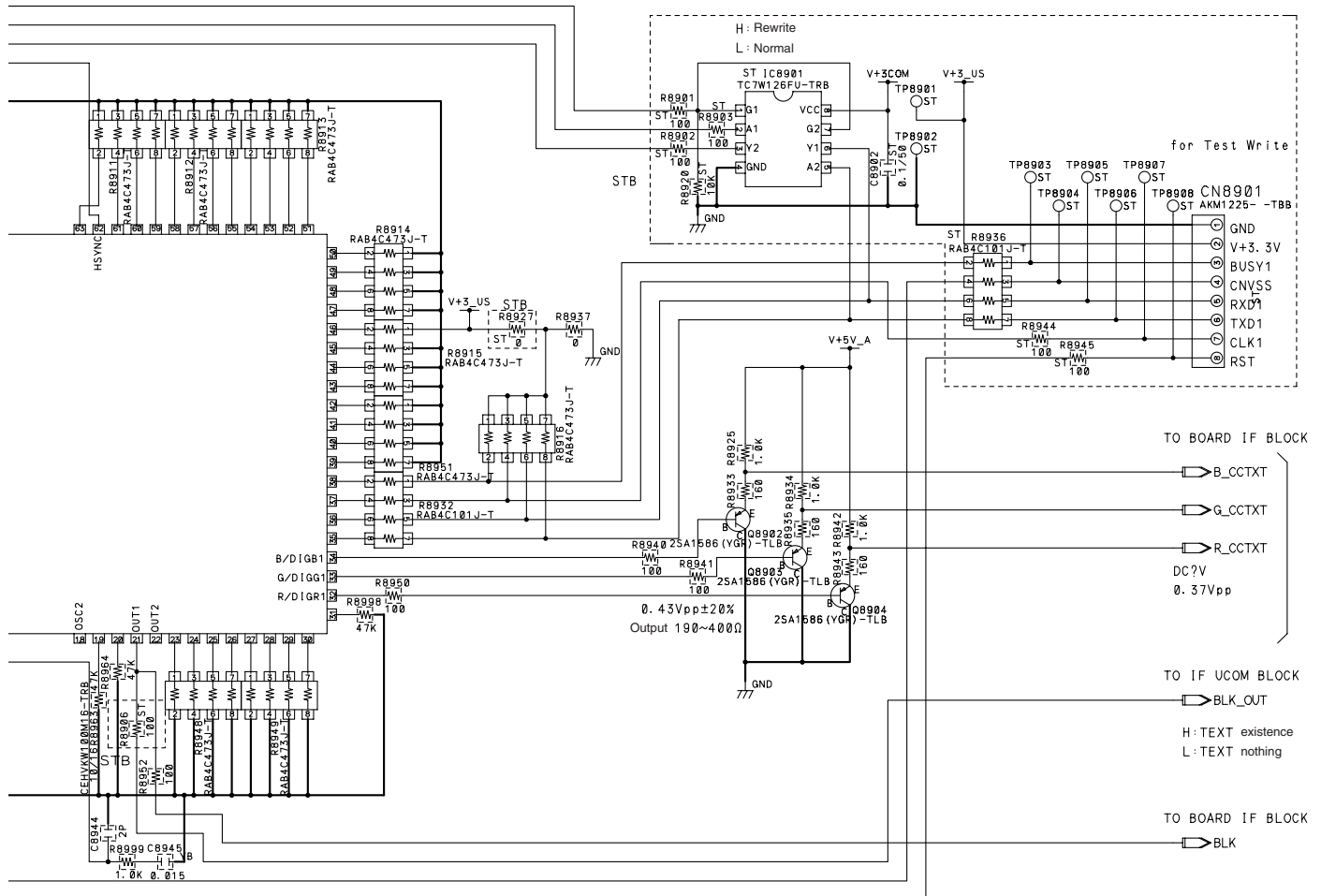
HD_TXT

VD_TXT

3. 3Vpp Positive polarity



B 7/8

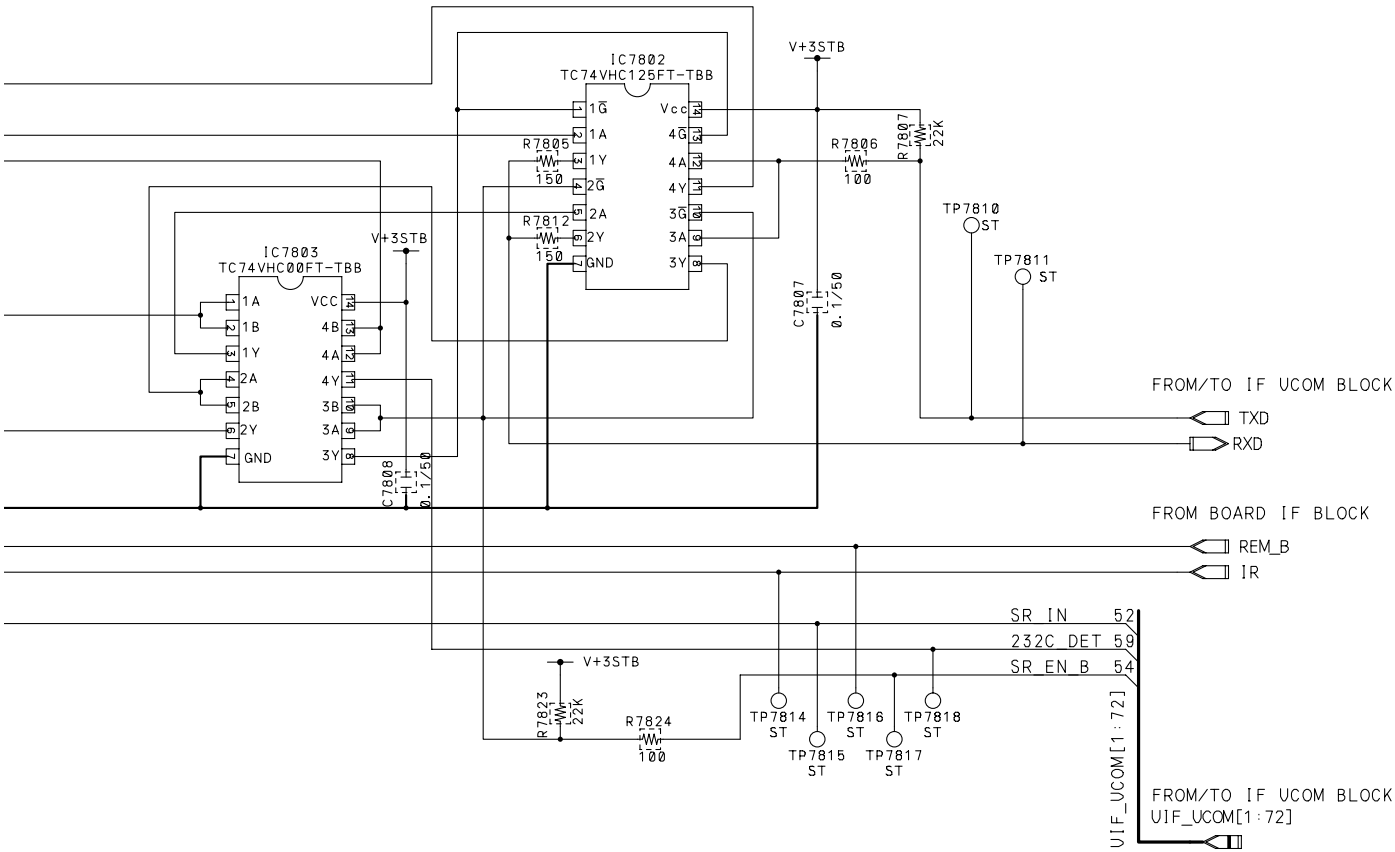


	USED	VACANT (AWZ6978)	VACANT (AWZ6979)
R	8901-8976	8971-8973	8971-8973
C	8901-8945	8905, 8908, 8922-8924, 8926-8928, 8932-8934, 8938-8943	8905, 8908, 8922-8924, 8926-8928, 8932-8934, 8938-8943
Q	8902-8924	8905-8922	8905-8922
D			
X	8901		
IC	8901-8906	8902, 8905	8902, 8905
CN	8901		

△

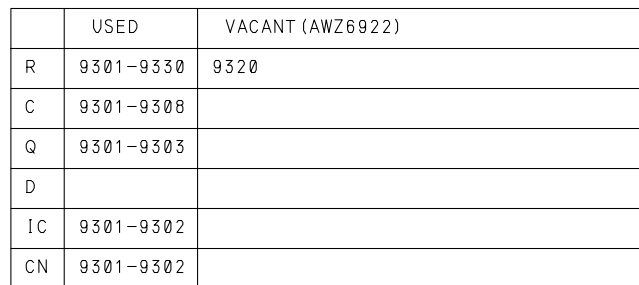
F

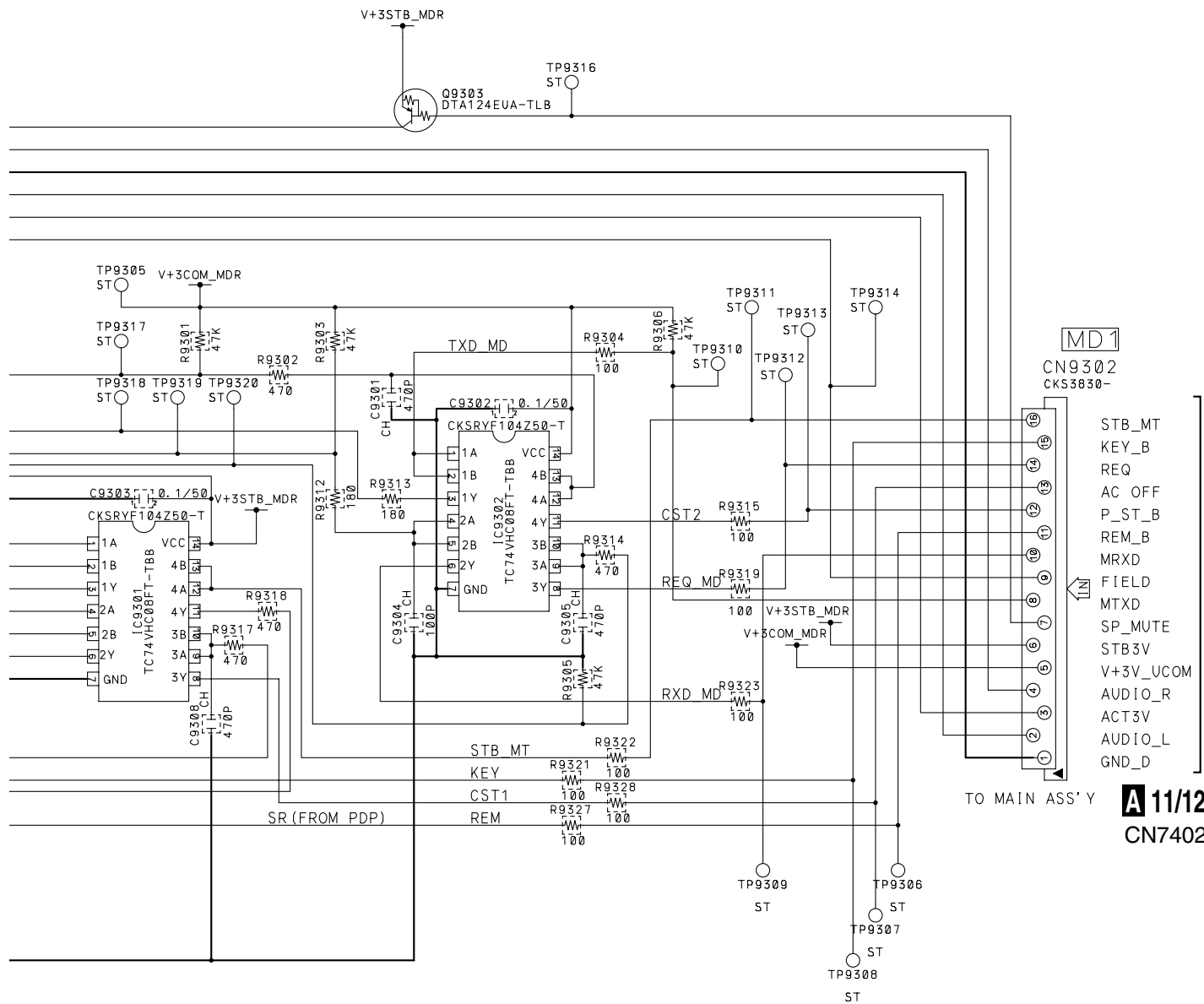
B 8/8 AV BOARD ASSY (PDP-R05U : AWZ6978) (PRO-R05U : AWZ6979)



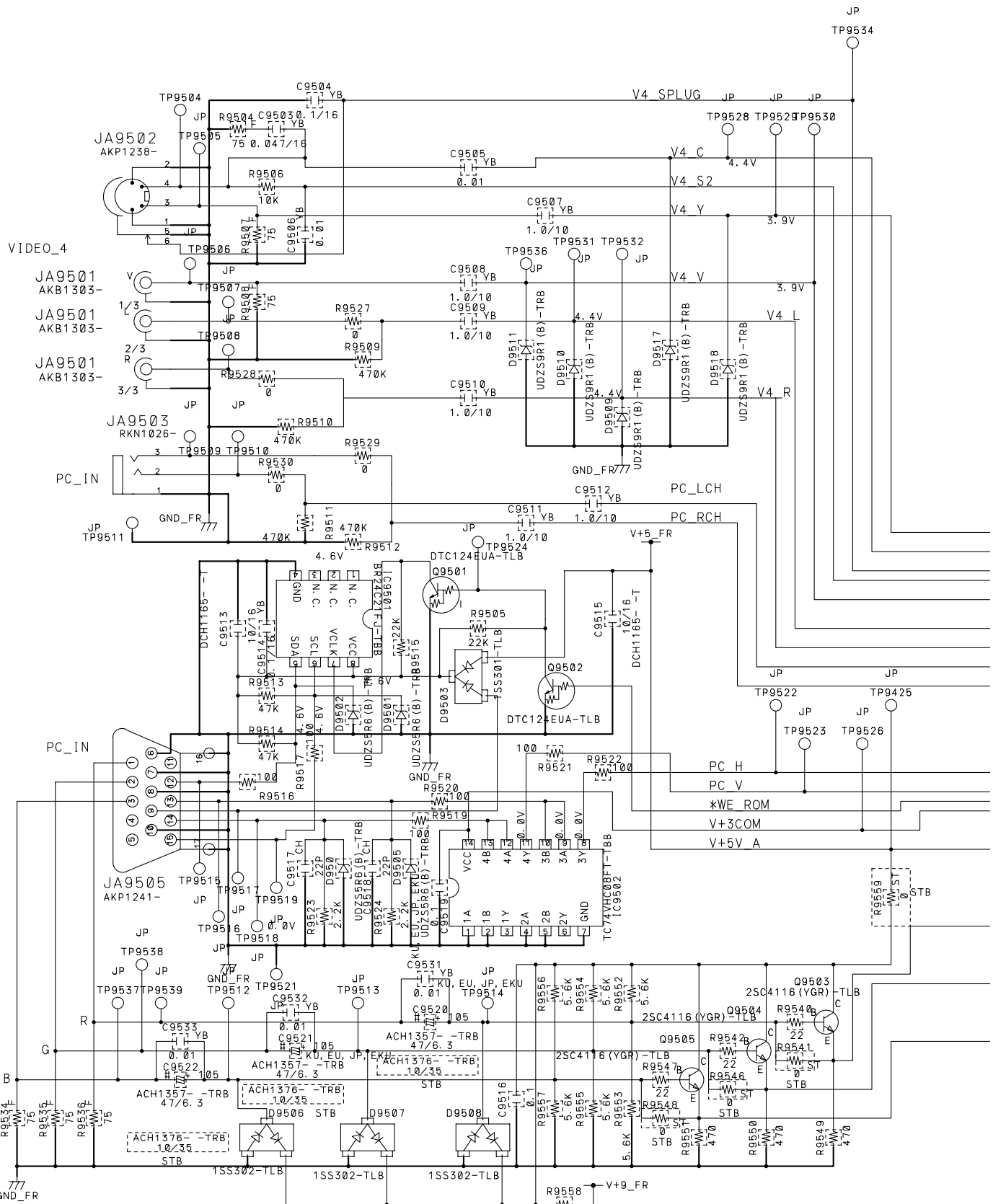
	USED	VACANT
R	7801-7826	
C	7801-7809	
Q	7801-7808	
D	7801-7812	
IC	7801-7803	
CN	7801	
JA	7801	

E MDR ASSY (AWZ6922)

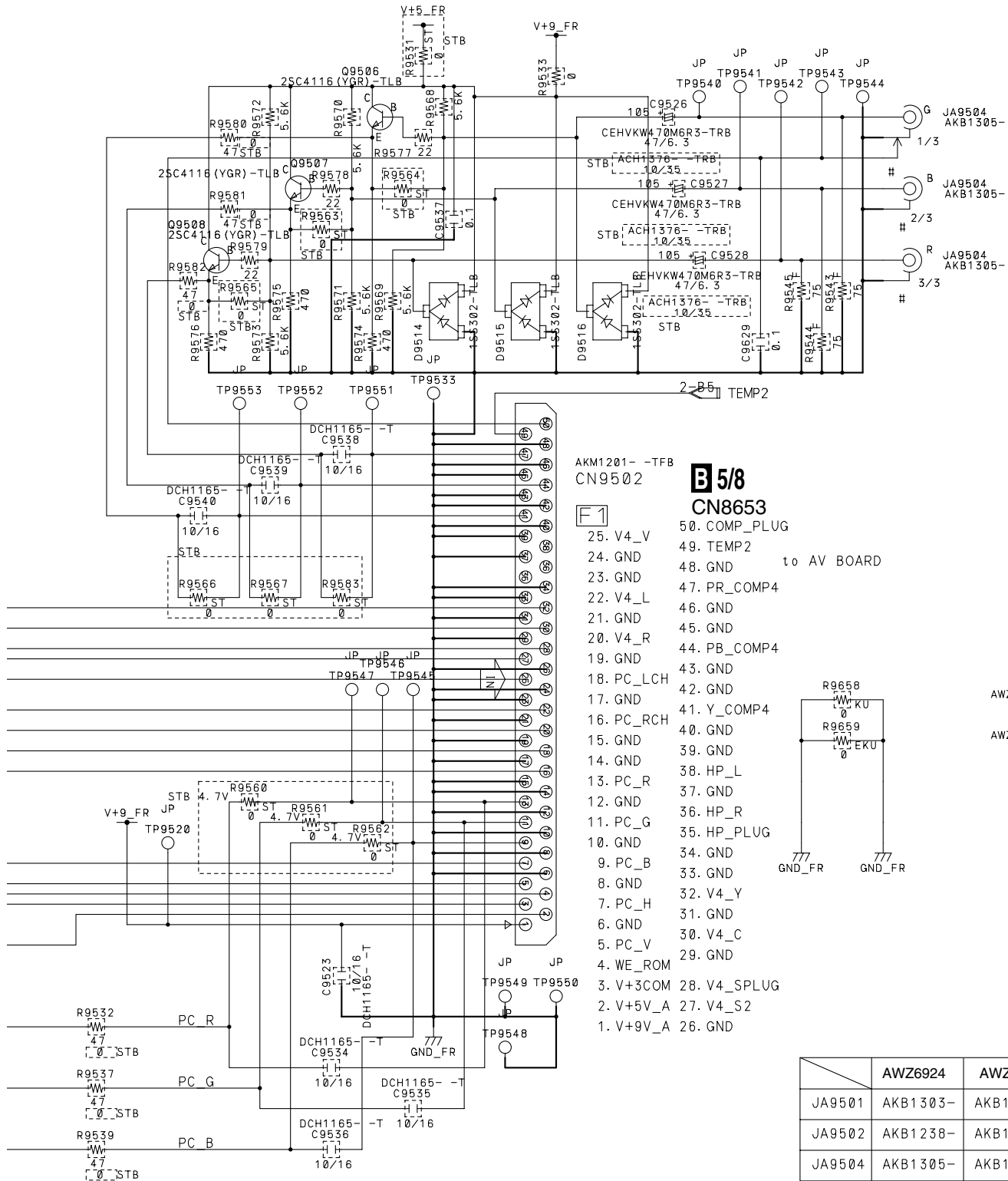




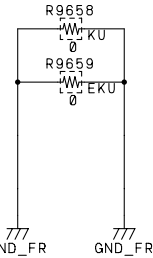
3.24 FRONT ASSY



G FRONT ASSY (PDP-R05U : AWZ6924) (PRO-R05U : AWZ6928)



- AKM1201- -TFB
CN9502
- B 5/8**
CN8653
50. COMP_PLUG
49. TEMP2
48. GND to AV BOARD
47. PR_COMP4
46. GND
45. GND
44. PB_COMP4
43. GND
42. GND
41. Y_COMP4
40. GND
39. GND
38. HP_L
37. GND
36. HP_R
35. HP_PLUG
34. GND
33. GND
32. V4_Y
31. GND
30. V4_C
29. GND
28. V4_SPLUG
27. V4_S2
26. GND
25. V4_V
24. GND
23. GND
22. V4_L
21. GND
20. V4_R
19. GND
18. PC_LCH
17. GND
16. PC_RCH
15. GND
14. GND
13. PC_R
12. GND
11. PC_G
10. GND
9. PC_B
8. GND
7. PC_H
6. GND
5. PC_V
4. WE_ROM
3. V+3COM
2. V+5V_A
1. V+9V_A



	AWZ6924	AWZ6928
JA9501	AKB1303-	AKB1304-
JA9502	AKB1238-	AKB1239-
JA9504	AKB1305-	AKB1306-

3.25 LED ASSY

H LED ASSY (AWZ6925)

A

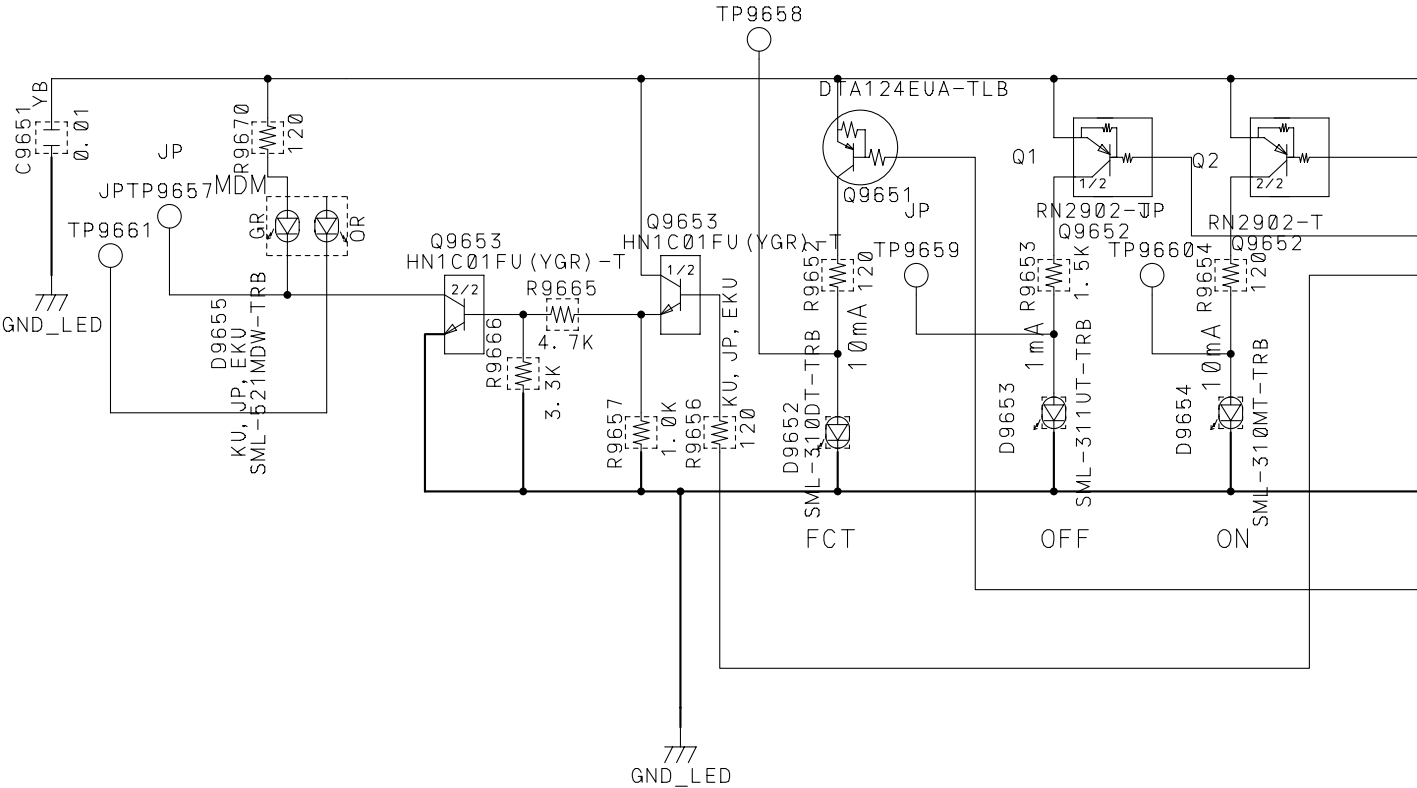
B

C

D

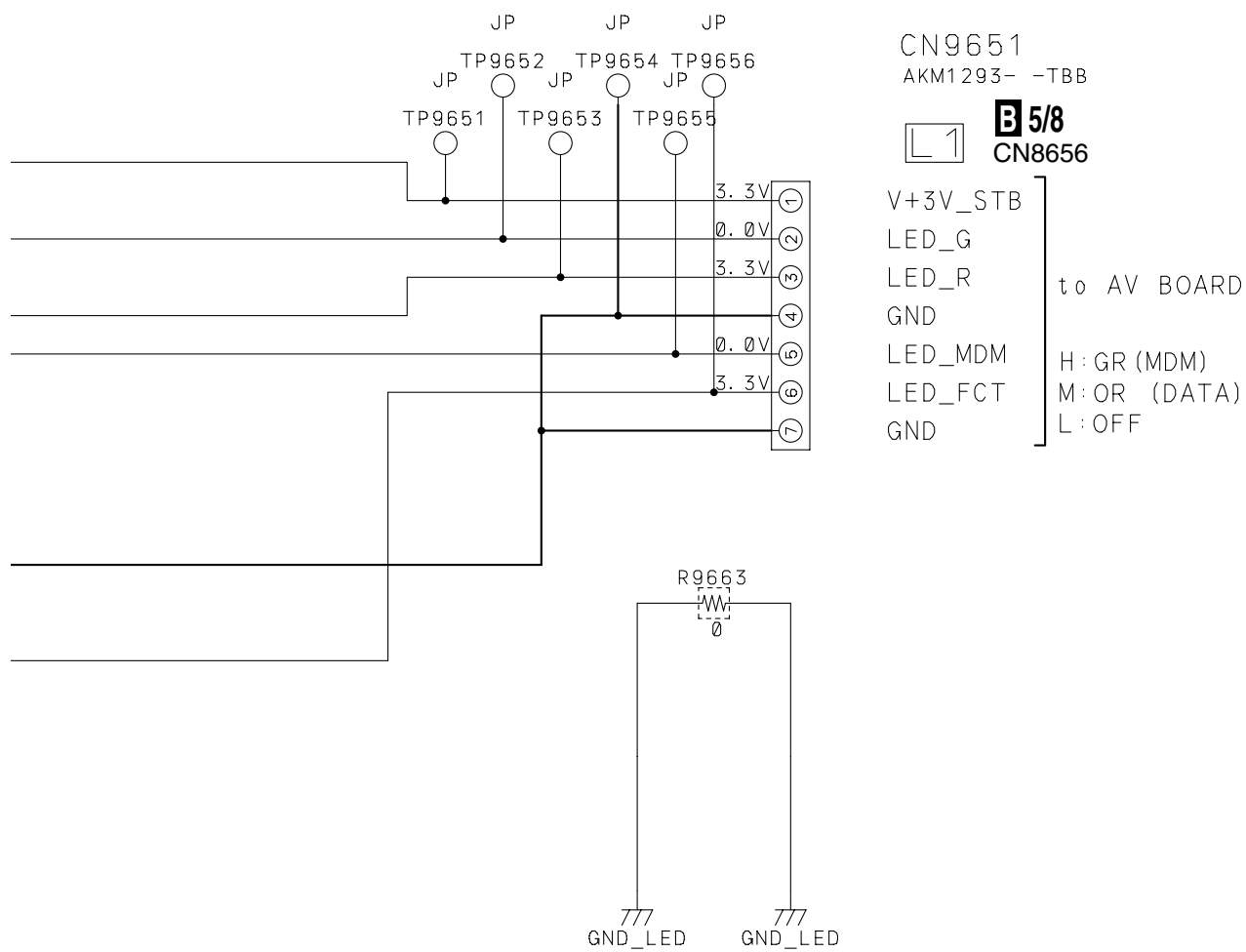
E

F



ITEM	USED	VACANT
R	9652-9671	9658-9661
C	9651, 9652	
Q	9651-9654	
D	9652-9655	
IC		
CN	9651	





CN9651

AKM1293- -TBB

1

B 5/8
CN8656

V+3V_STB

LED_G

LED_R

GND

LED_MDM

LED_FCT

GND

to AV BOARD

H: GR (MDM)

M: OR (DATA)

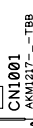
L: OFF

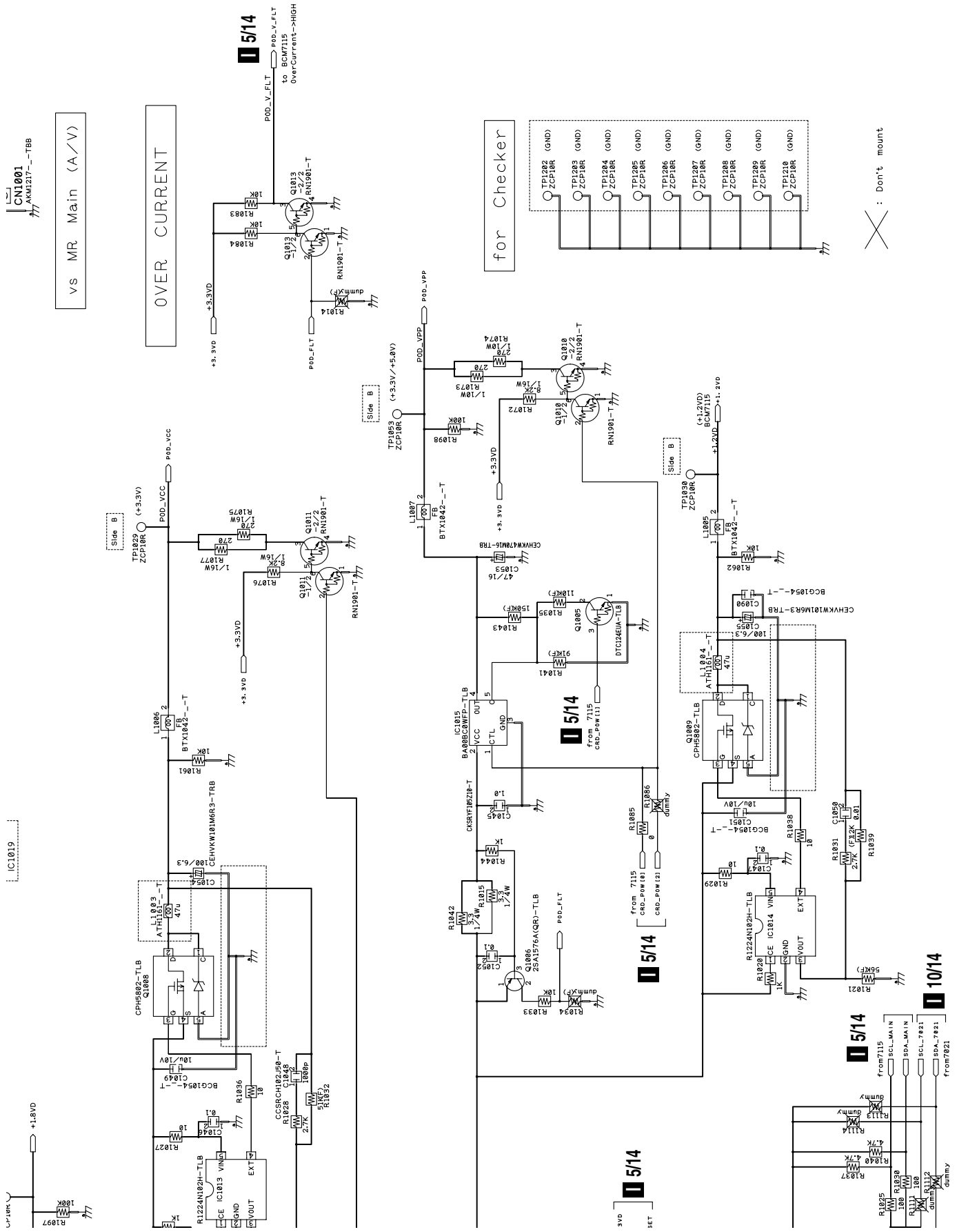
R9663

0

GND_LED

GND_LED





CN1001
AKM1217--TBB

vs MR Main (A/V)

OVER CURRENT

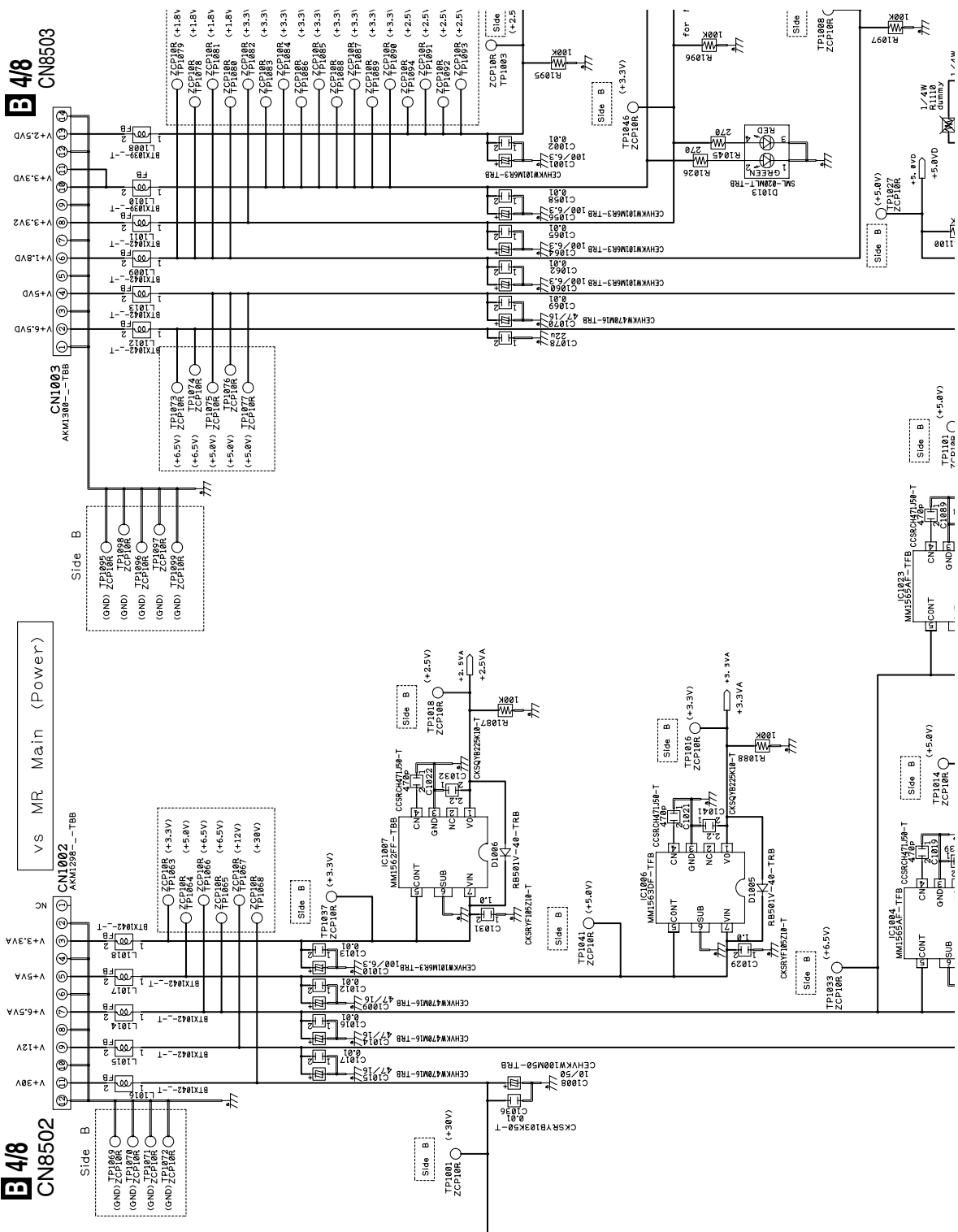
for checker

✗ : Don't mount

PDP-R05U

F

B 4/8
CN8502

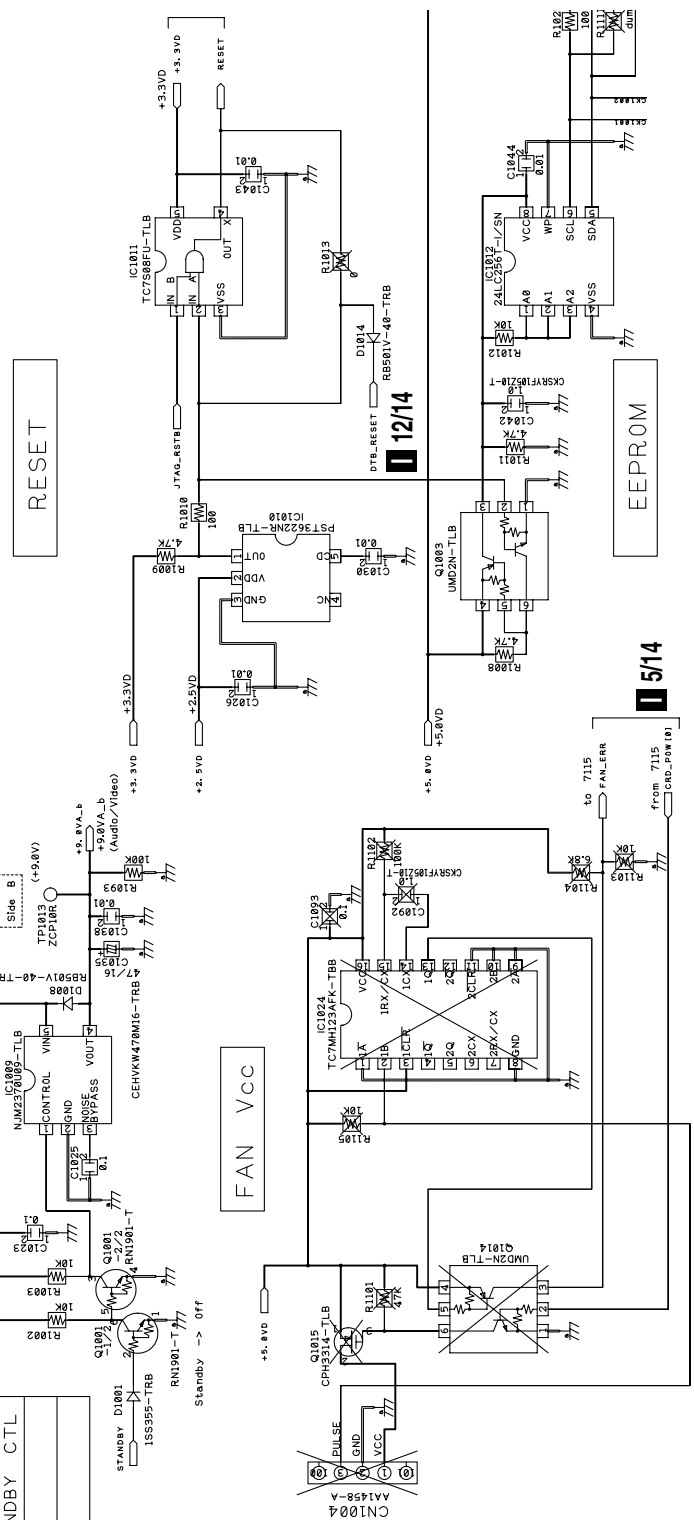
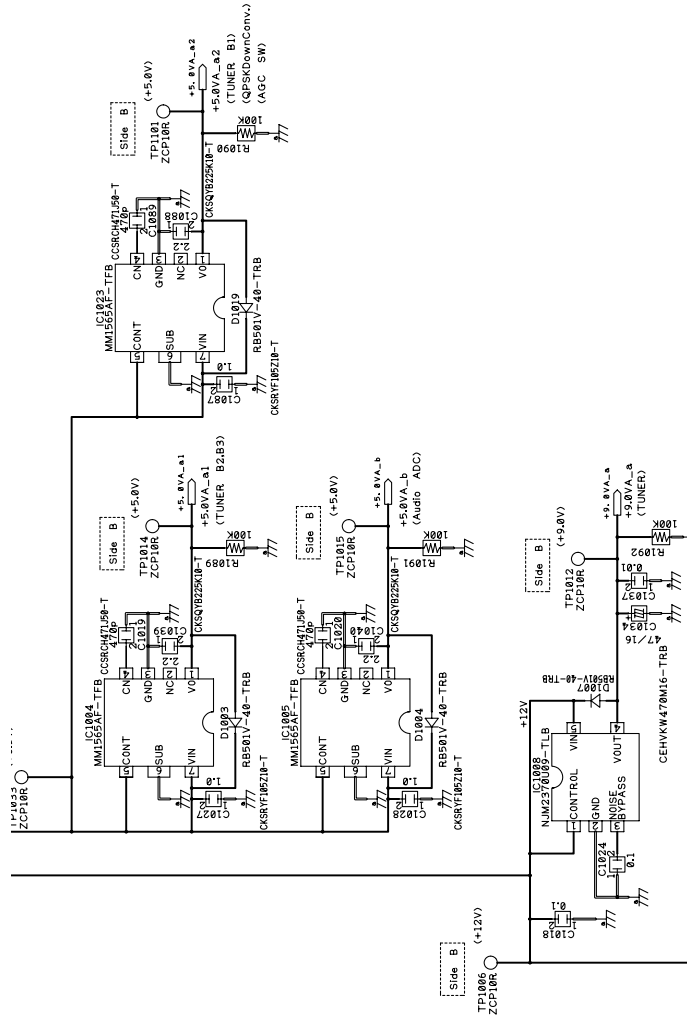
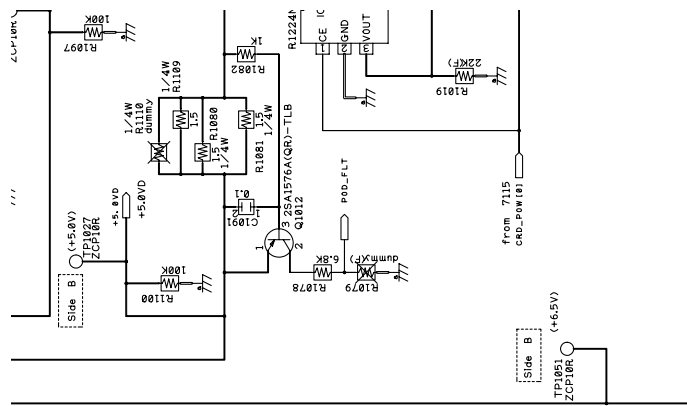


Large size SCH diagram


1/2

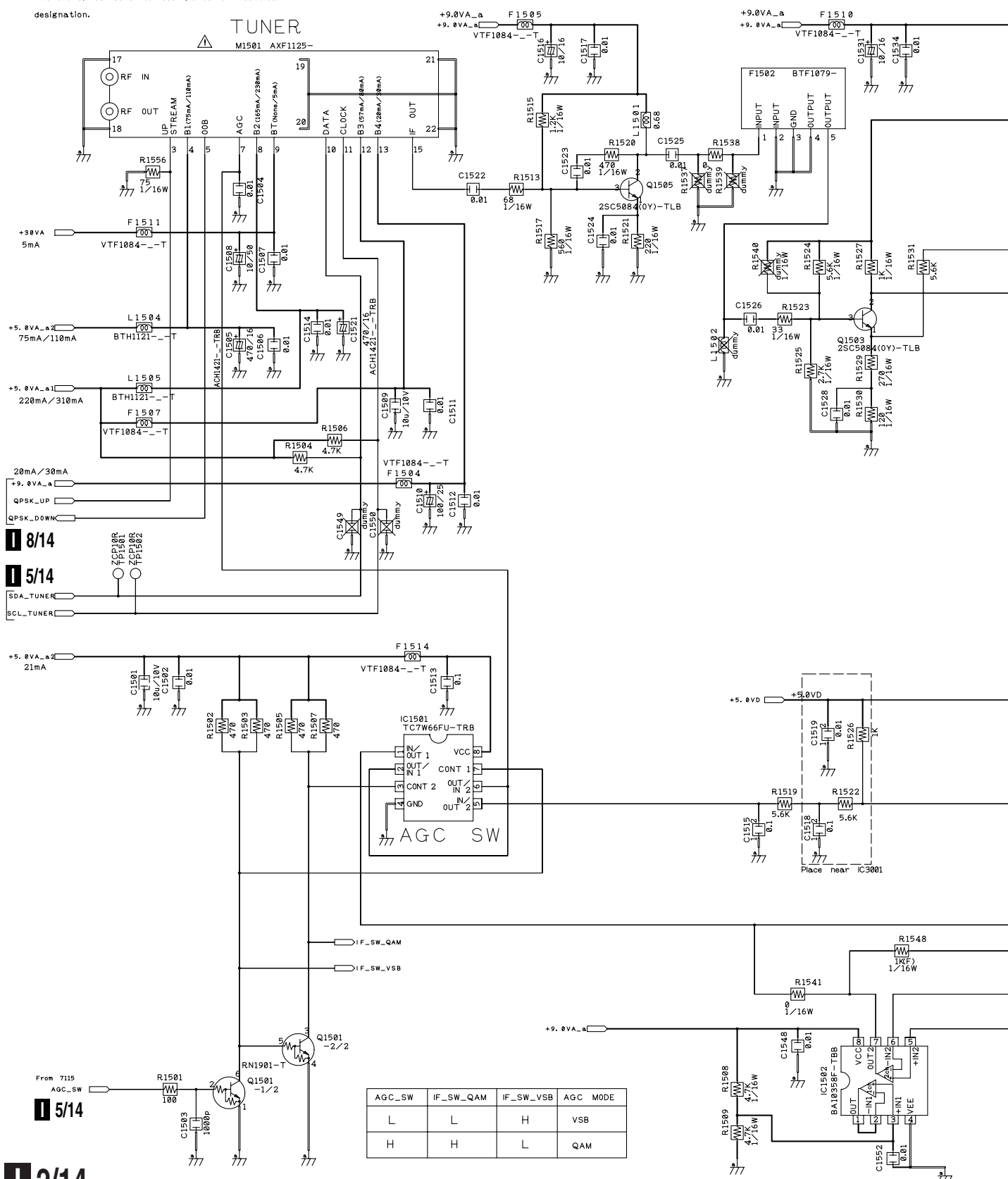
2/2

2/2

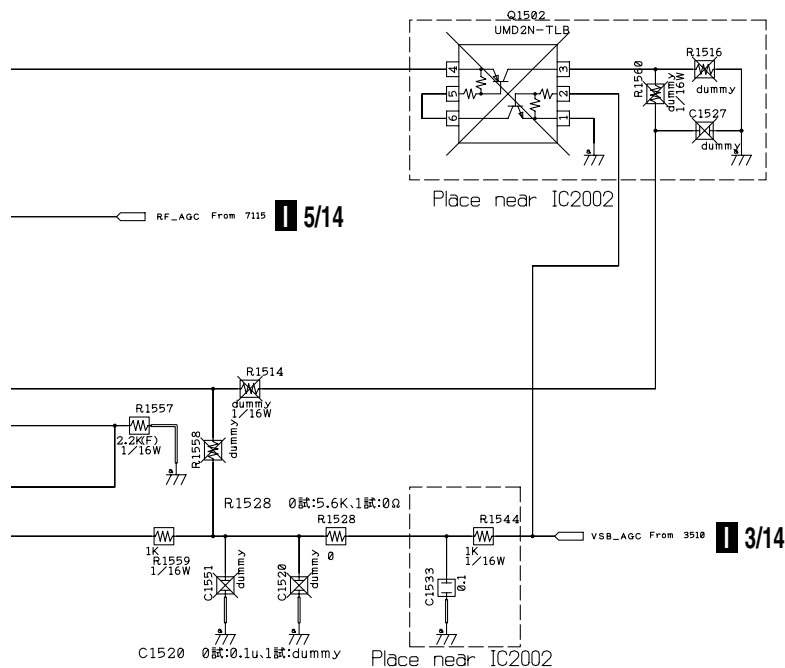
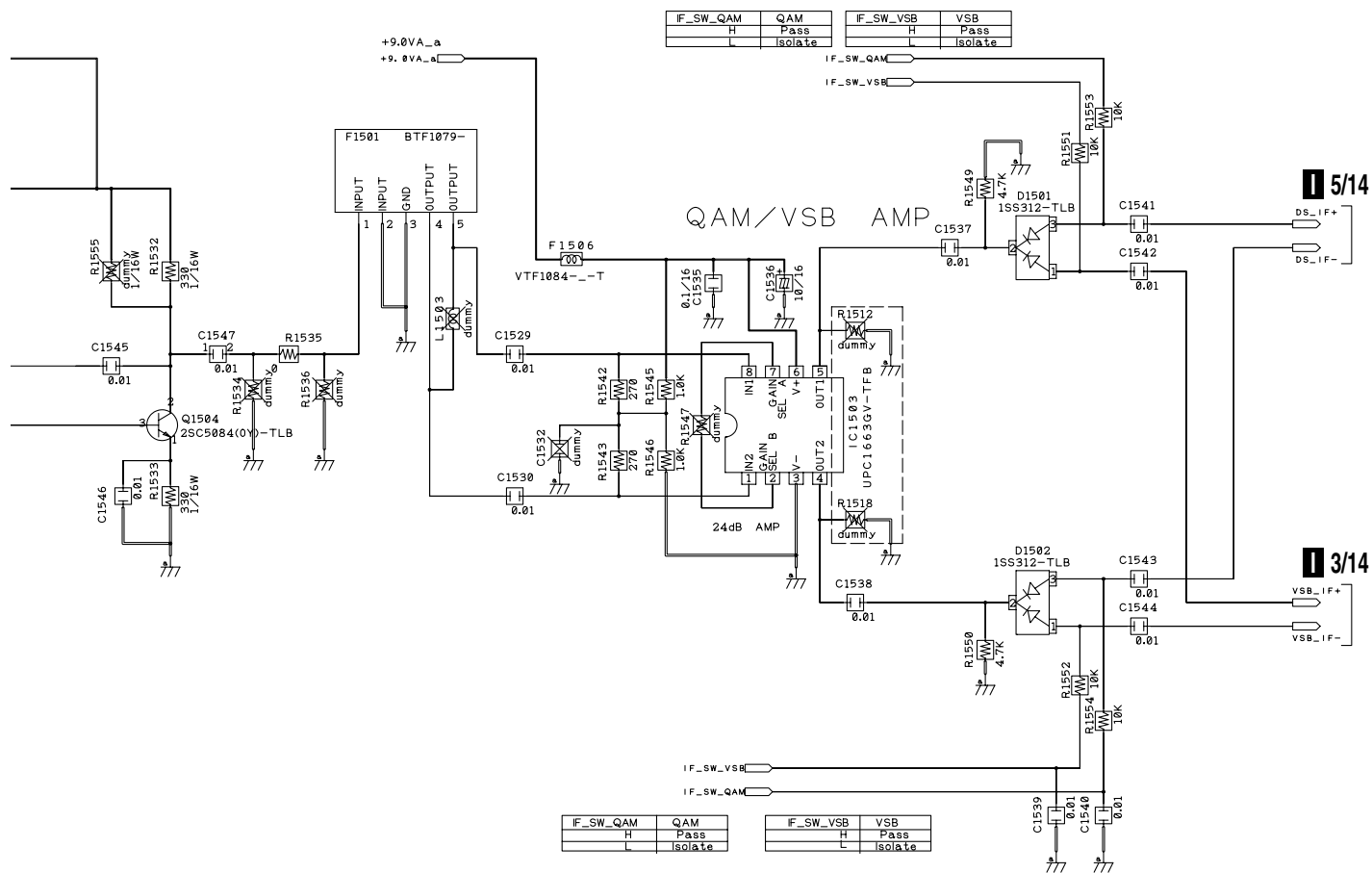


2/14 DTV TUNER BOARD ASSY (AWE1300)

The  Mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, be sure to use parts of identical designation.



AGC_SW	IF_SW_QAM	IF_SW_VSB	AGC MODE
L	L	H	VSB
H	H	L	QAM

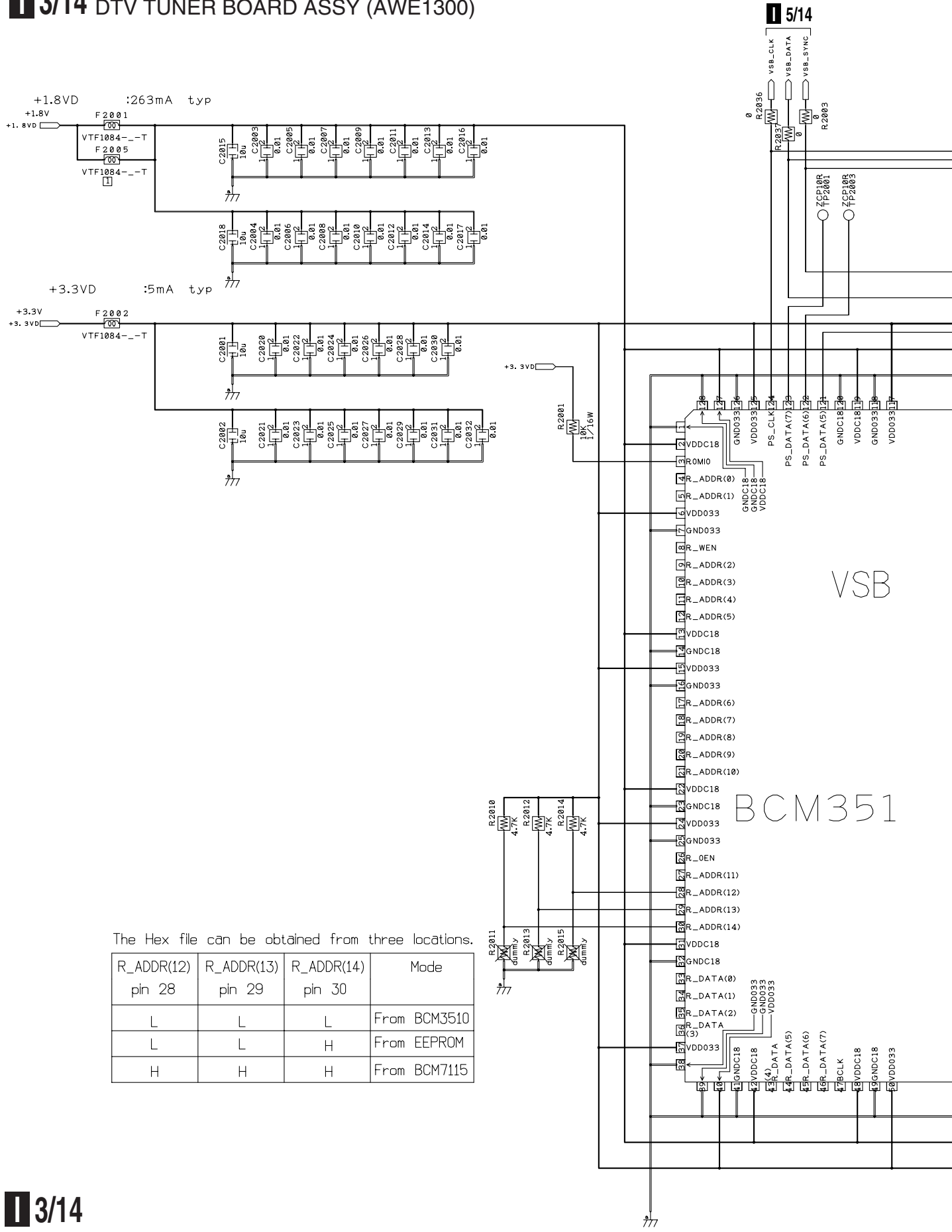


✕ Don't mount.

3.28 TUNER BOARD ASSY (3/14)

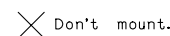
3/14 DTV TUNER BOARD ASSY (AWE1300)

A
B
C
D
E
F



The Hex file can be obtained from three locations.

R_ADDR(12) pin 28	R_ADDR(13) pin 29	R_ADDR(14) pin 30	Mode
L	L	L	From BCM3510
L	L	H	From EEPROM
H	H	H	From BCM7115



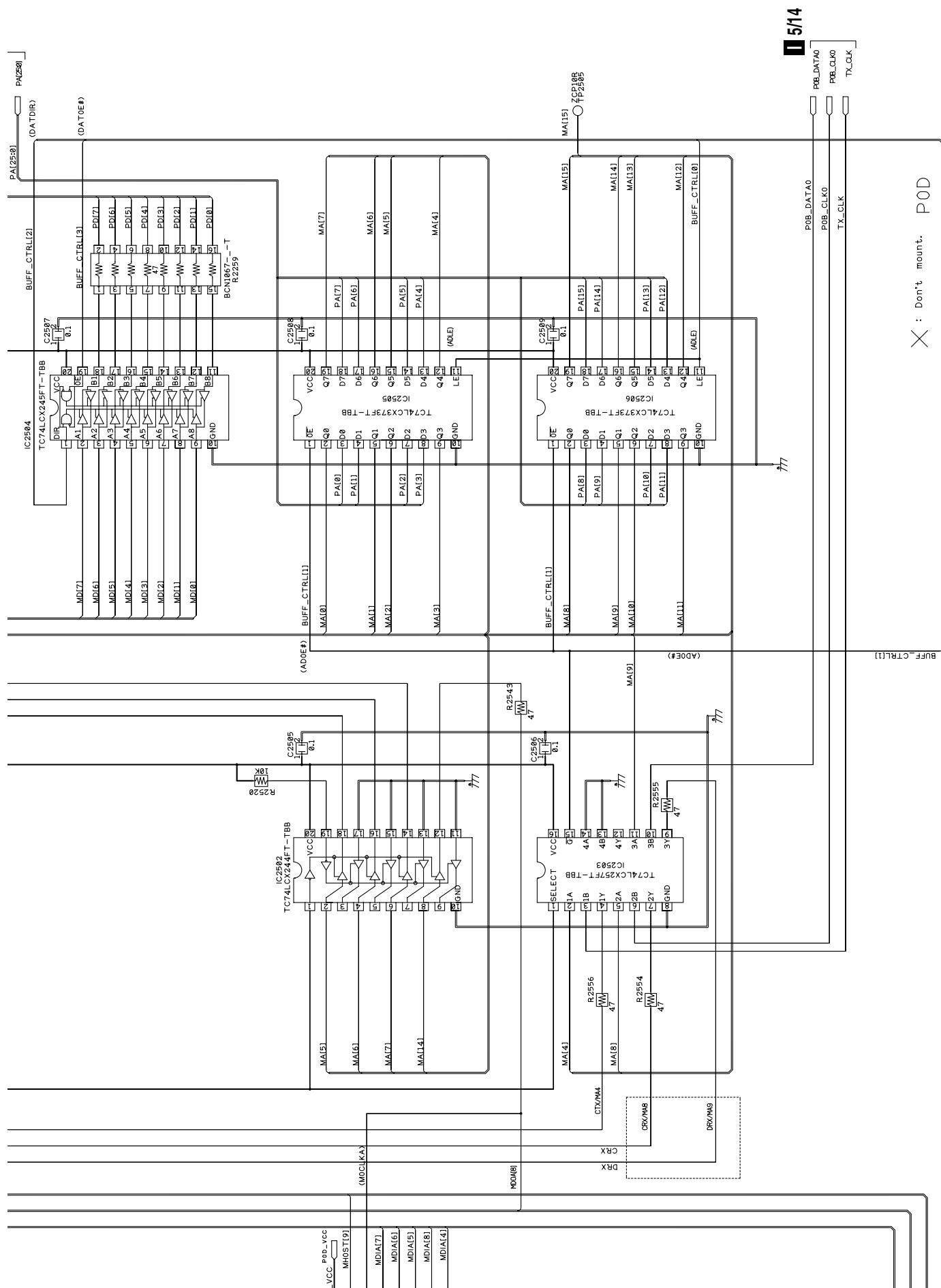
4/14 TUNER BOARD ASSY (AWE1300)

1/2

2/2

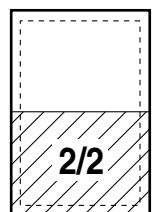
1/2



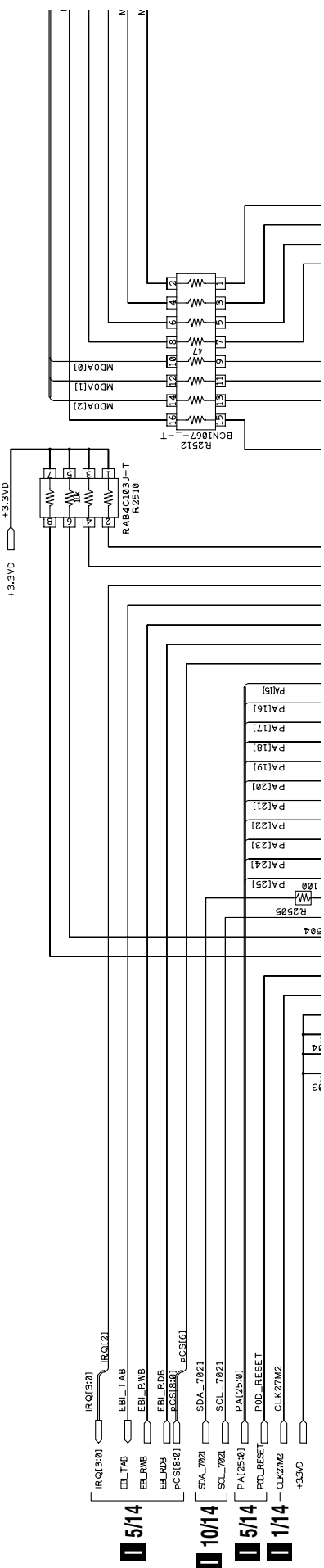
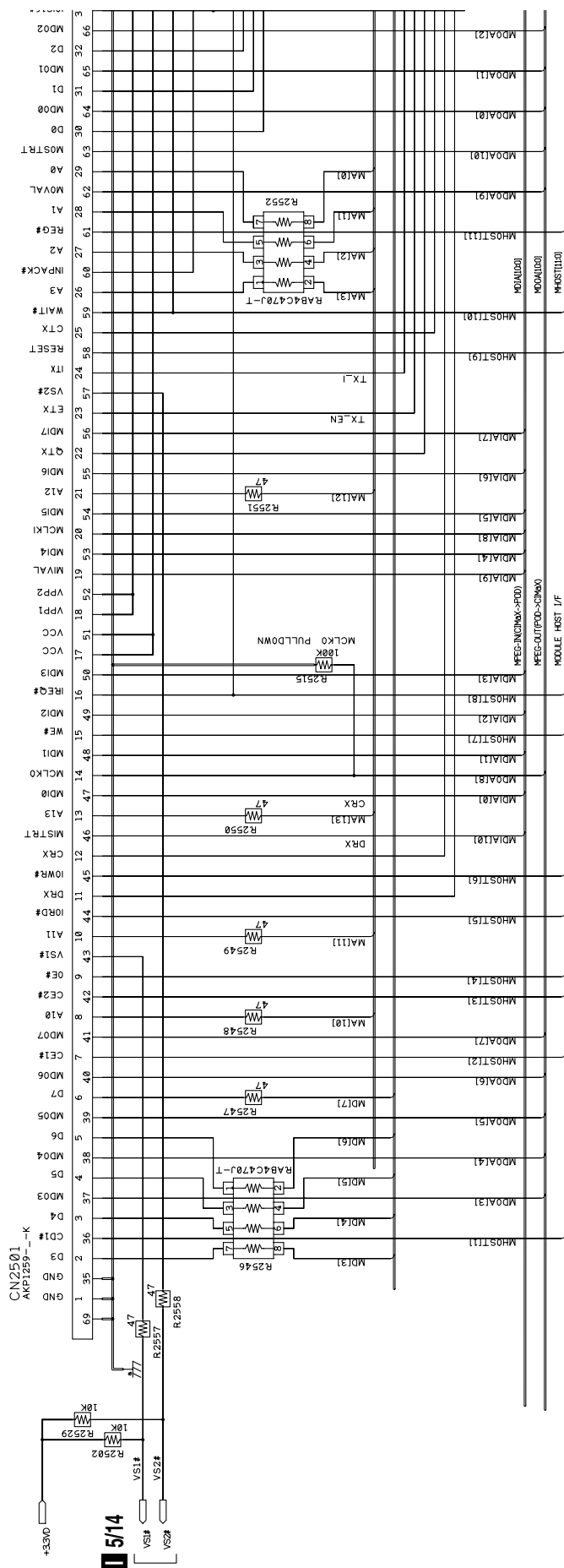


X : Don't mount. BDD

F



5/14





3.30 TUNER BOARD ASSY (5/14)

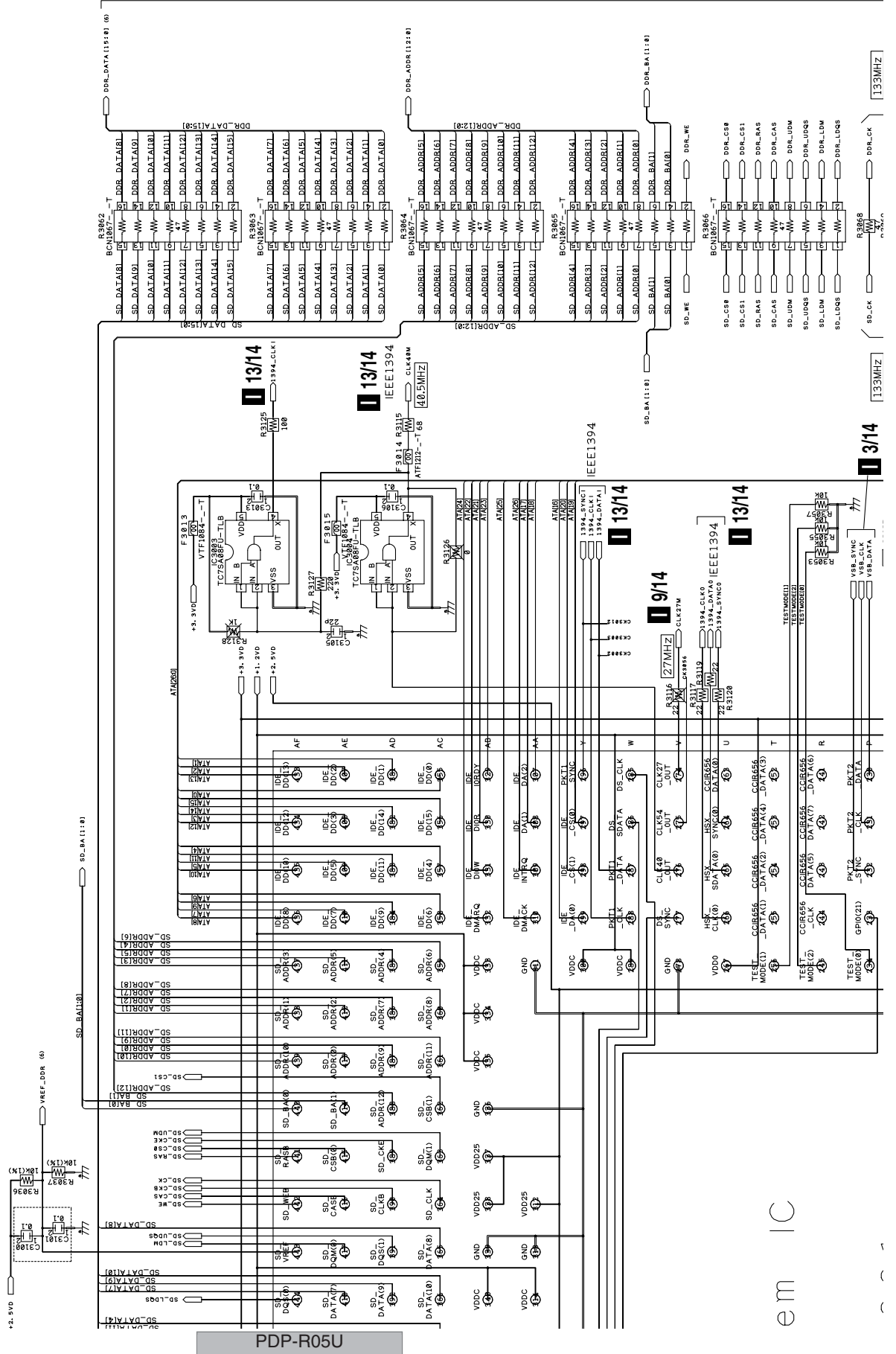
5/14 TUNER BOARD ASSY (AWE1300)

Large size
SCH diagram

1/2

2/2

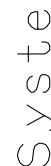
1/2



PDP-R05U

em ic

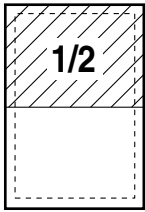
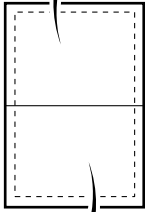
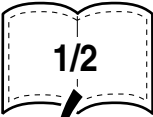
2/2



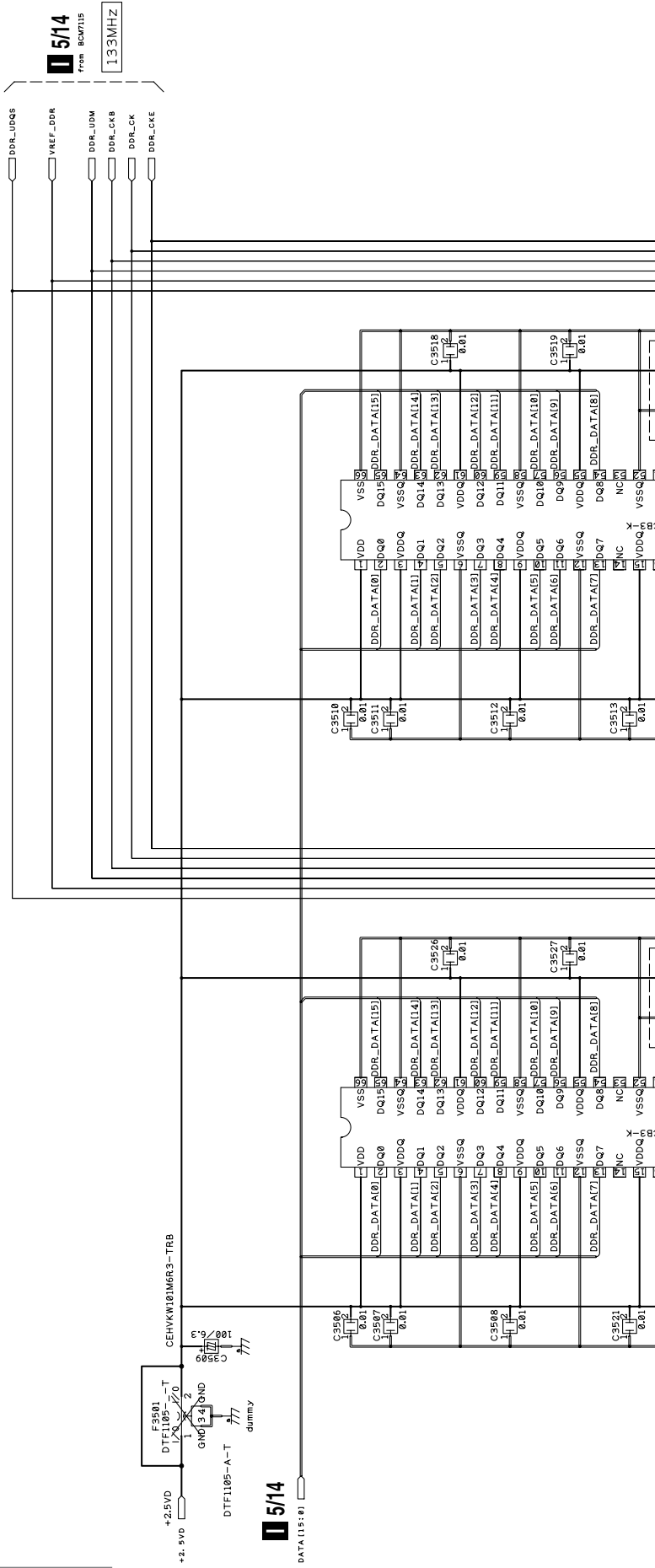
3.31 TUNER BOARD ASSY (6/14)

6/14 TUNER BOARD ASSY (AWE1300)

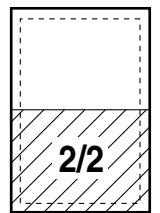
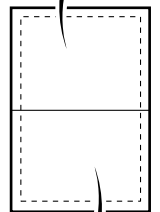
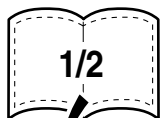
Large size
SCH diagram



DDR SDRAM on 7115_UMA
256Mbit x 2pcs

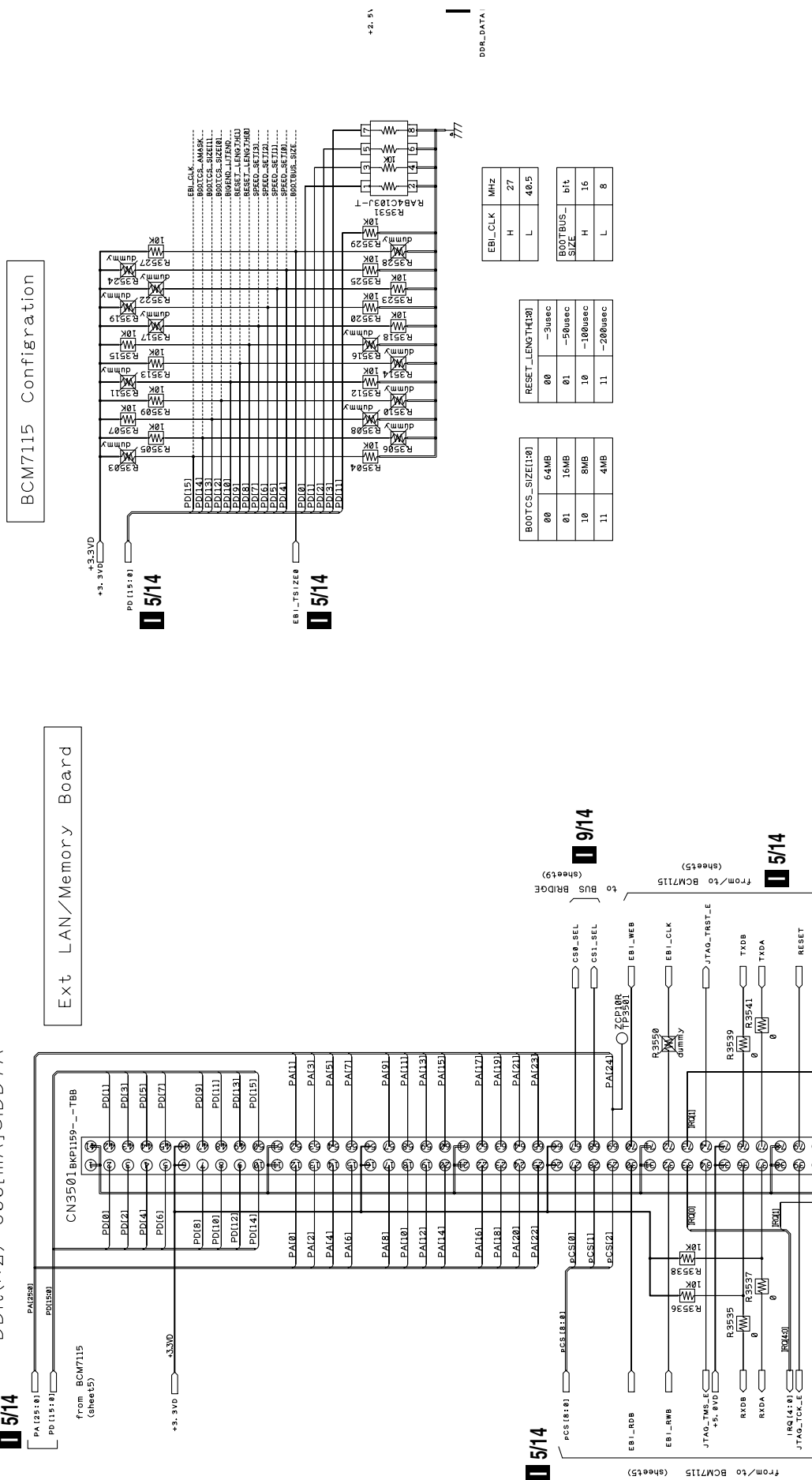


Large size SCH diagram

 (\max)

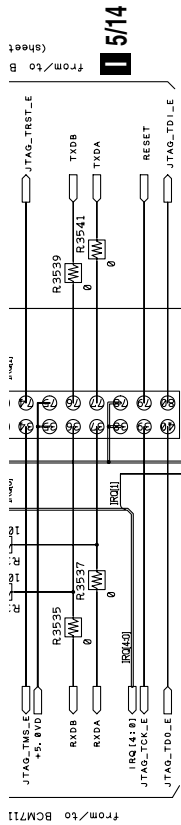
Flash=80[mA],50[mA](typ)

@Program,Else

$$\text{DDR}(\times 2)=600[\text{mA}]\text{@IDD7A}$$


Ext LAN/Memory Board

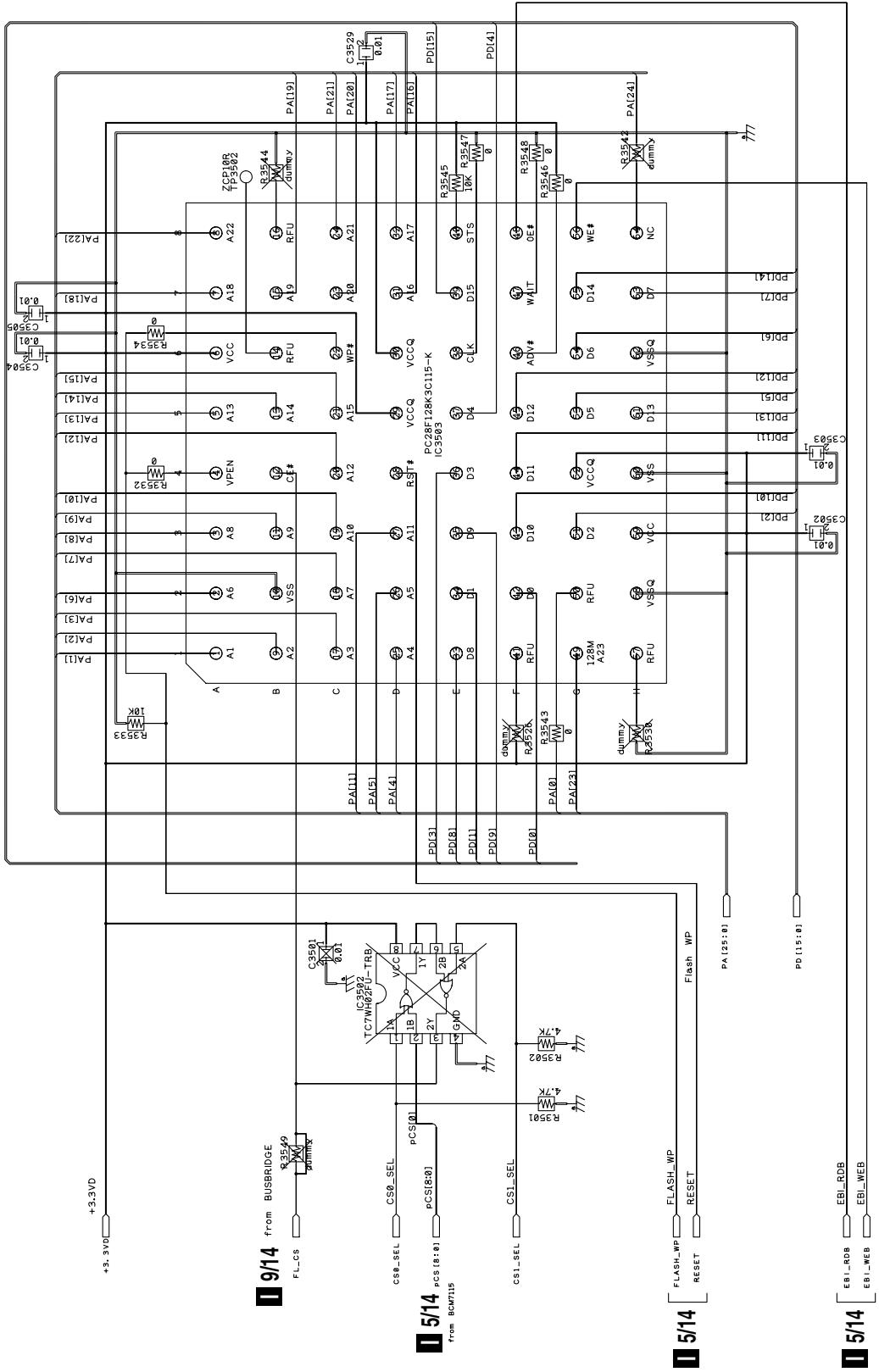
PDP-R05U



5/14

Flash on 7115_EBI 128Mbit (EasyBGA)

Address A23 is valid only on 128-Mbit densities and above; otherwise, it is a no connect(NC).
Address A24 is valid only on 256-Mbit density; otherwise, it is a no connect(NC).



28F128K3C	Power	Sig
VCC	CORE	POWER
VCCQ	I/O	POWER
VSS		GROUND
VSSQ	I/O	GROUND

from BCM7115 5/14

9/14 from BUSBRIDGE

5/14 from BCM7115

5/14

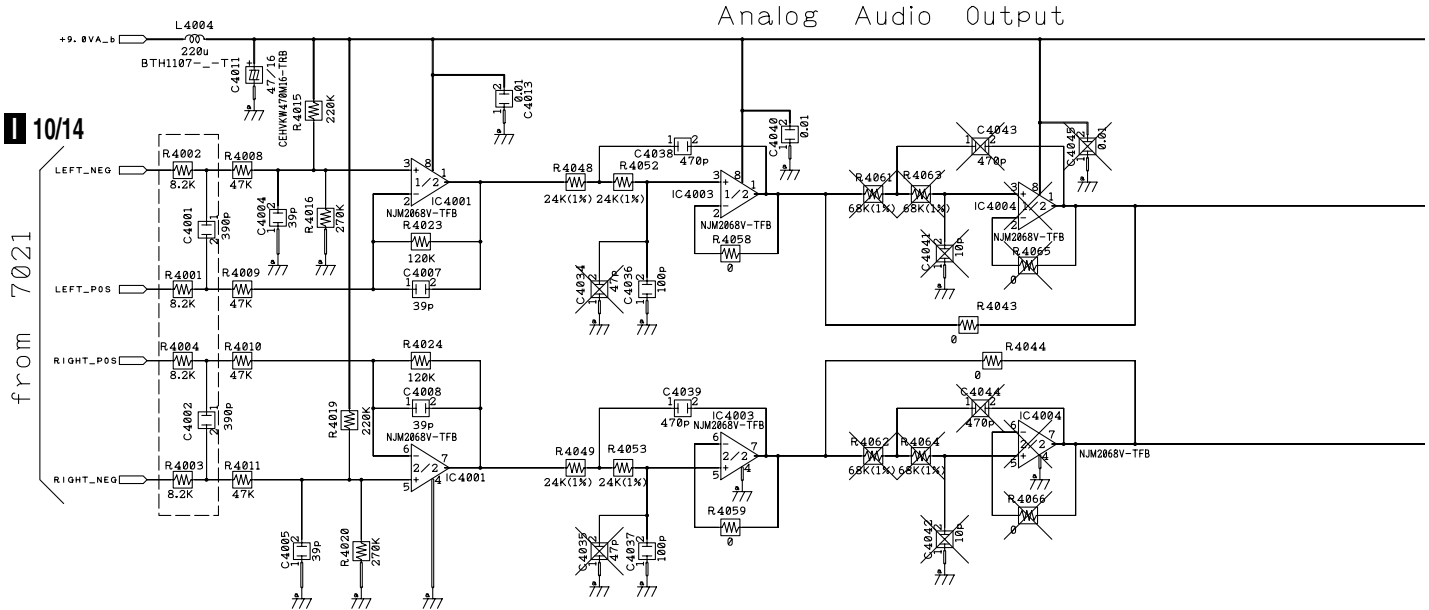
5/14

6/14

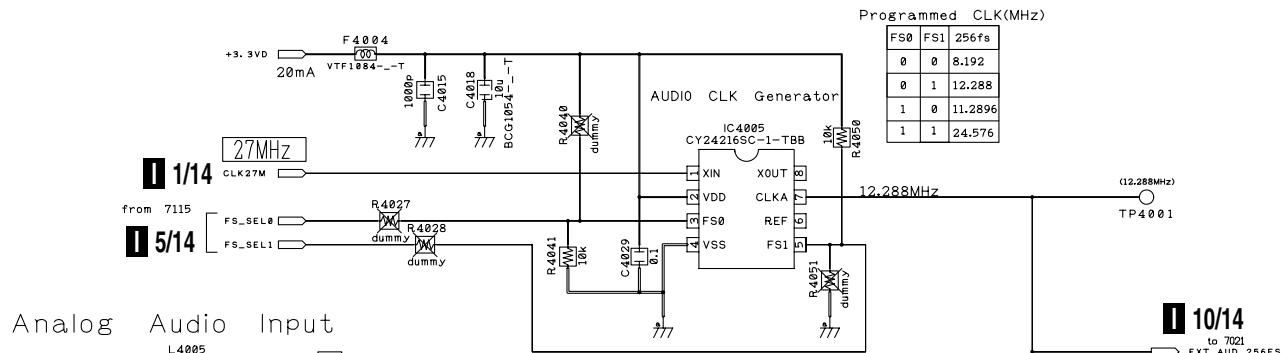
3.32 TUNER BOARD ASSY (7/14)

7/14 DTV TUNER BOARD ASSY (AWE1300)

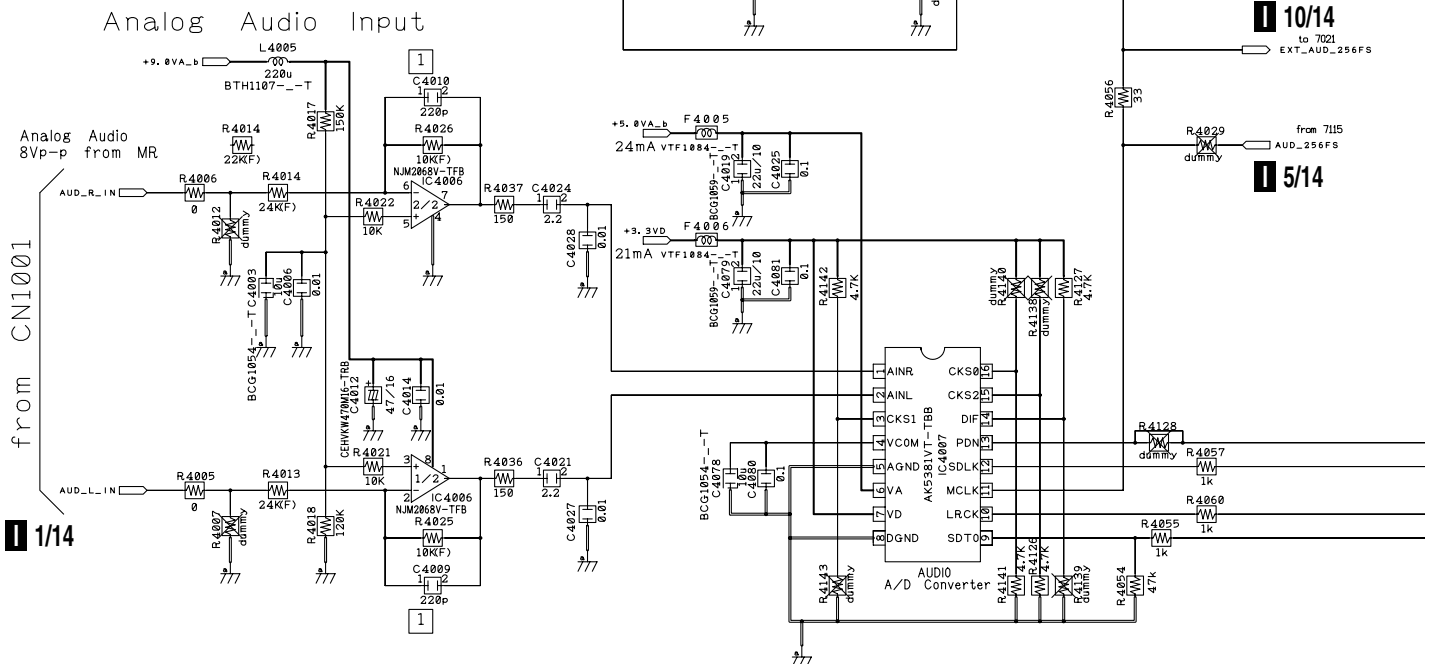
A



C



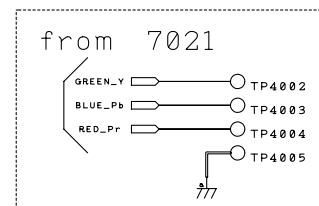
D



E

F

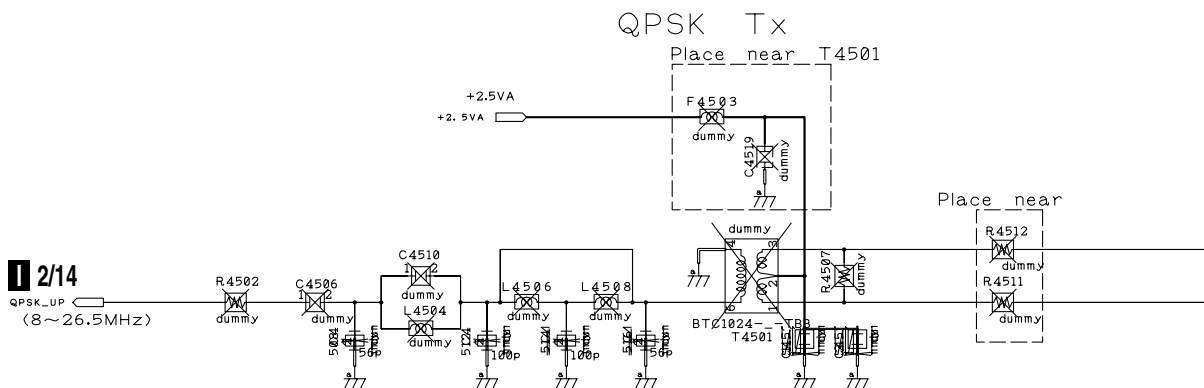
7/14



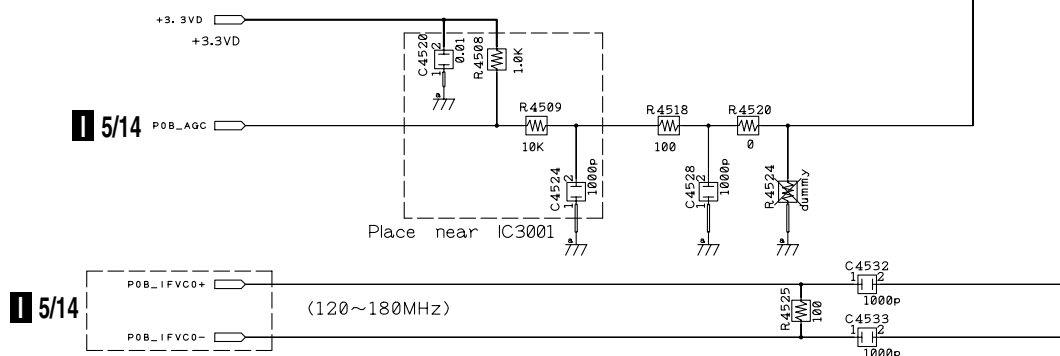
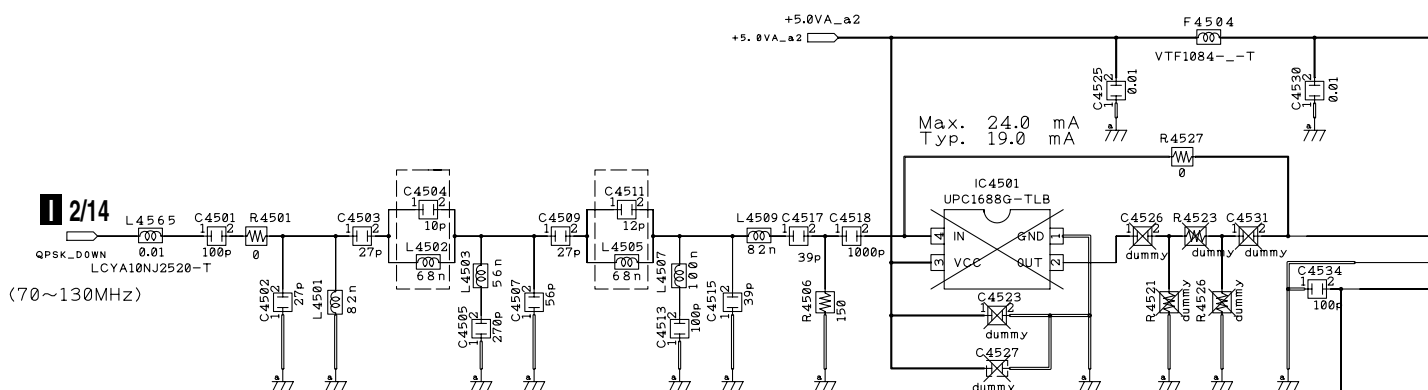


3.33 TUNER BOARD ASSY (8/14)

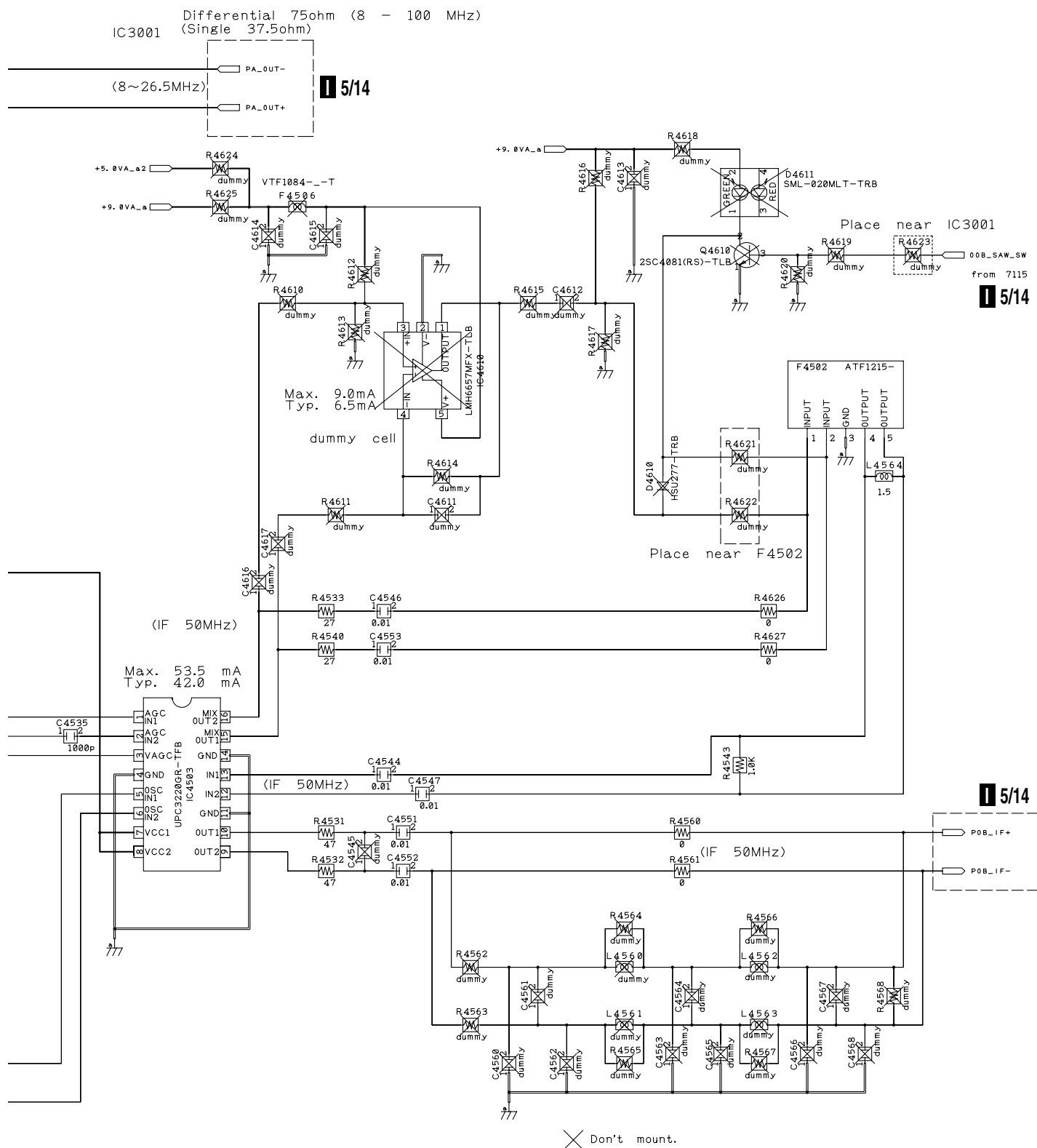
8/14 DTV TUNER BOARD ASSY (AWE1300)



QPSK Rx



8/14



3.34 TUNER BOARD ASSY (9/14)

9/14 TUNER BOARD ASSY (AWE1300)

A

B

C

D

E

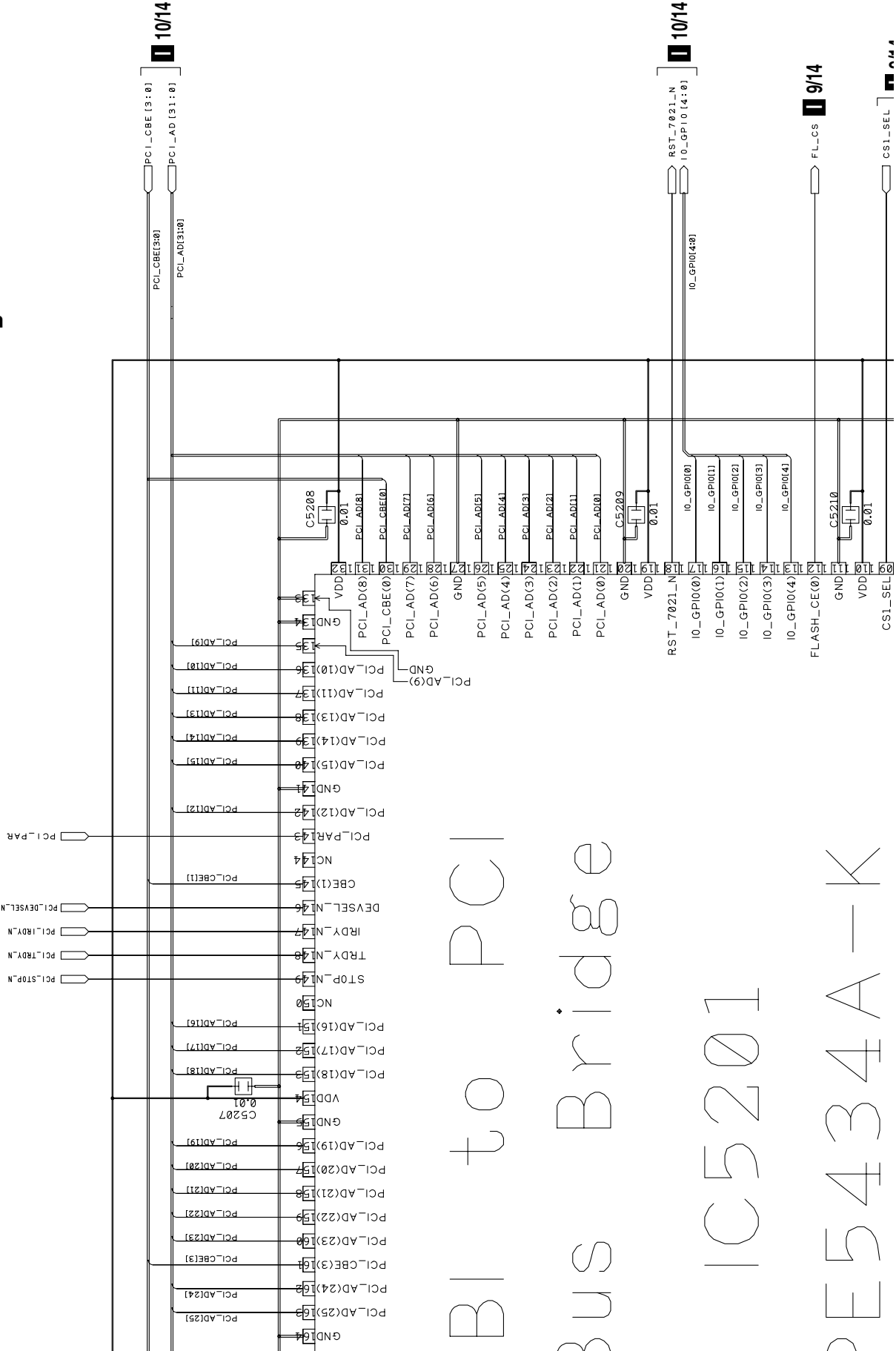
F

Large size
SCH diagram

1/2

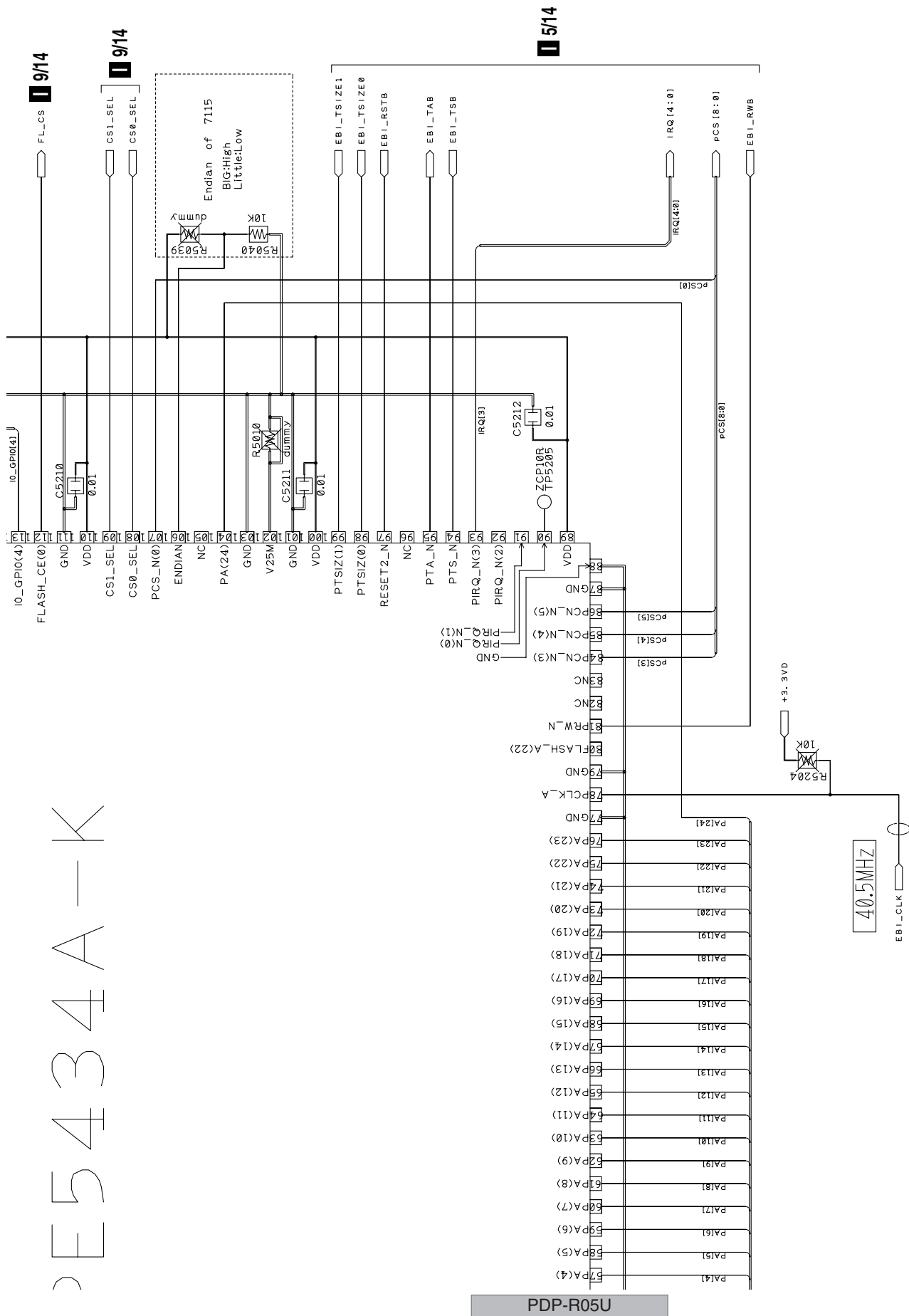
2/2

1/2



PDP-R05U

CE5434A-K



A

B

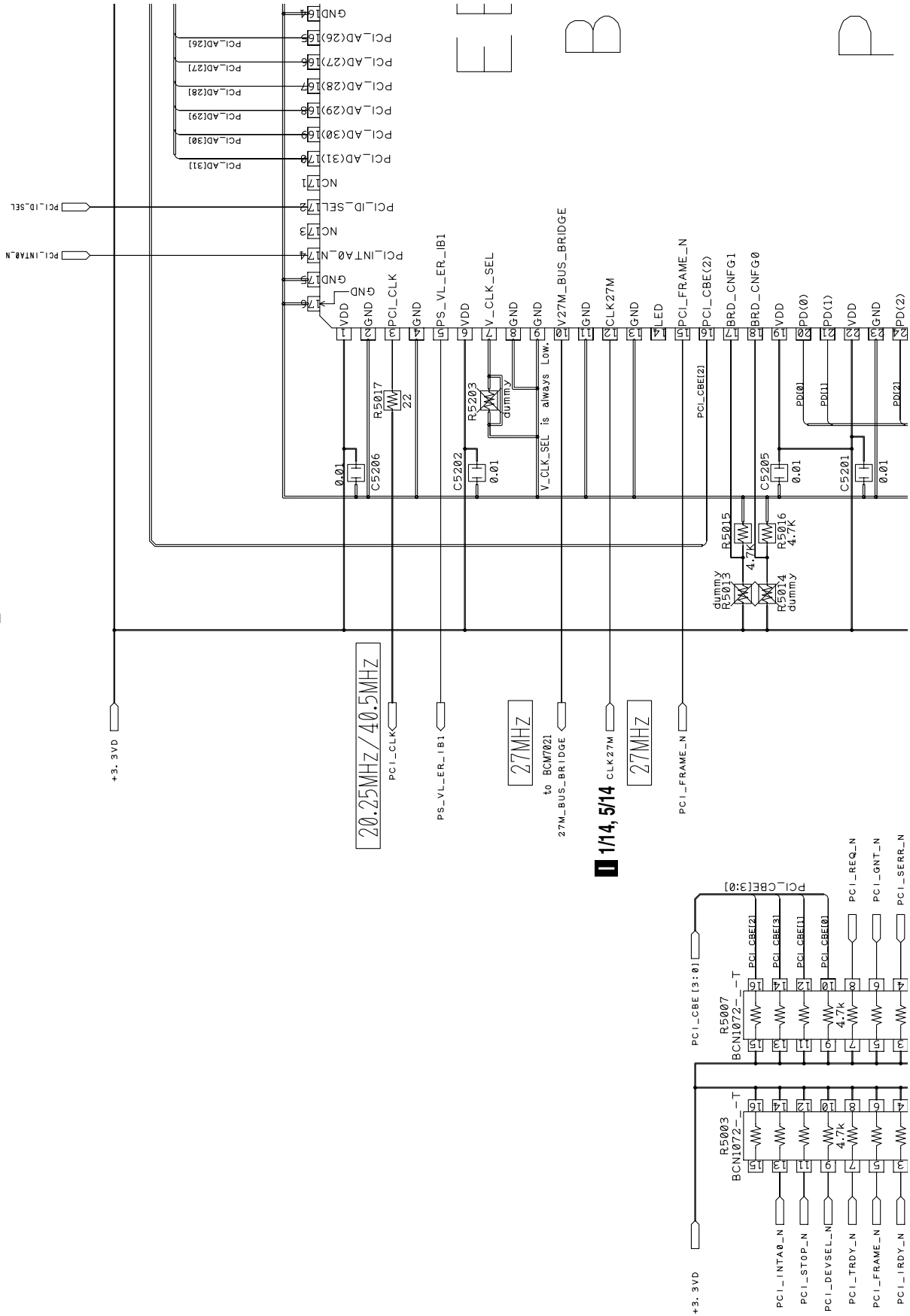
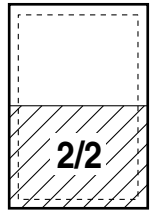
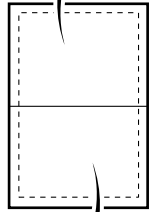
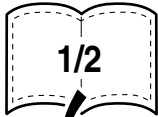
C

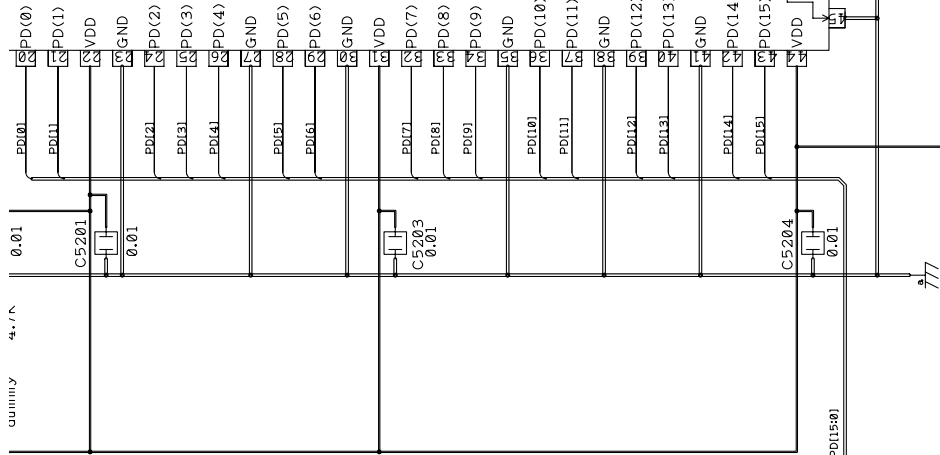
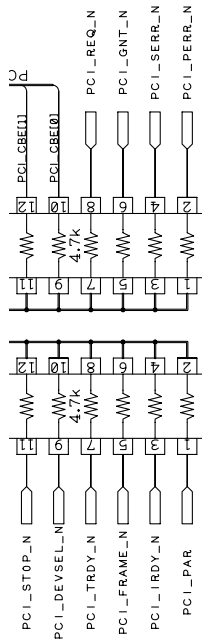
D

E

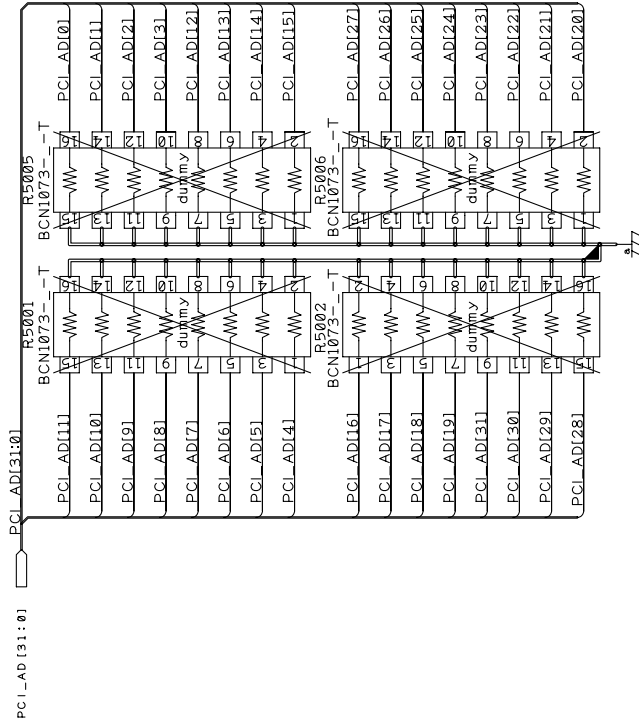
F

Large size
SCH diagram

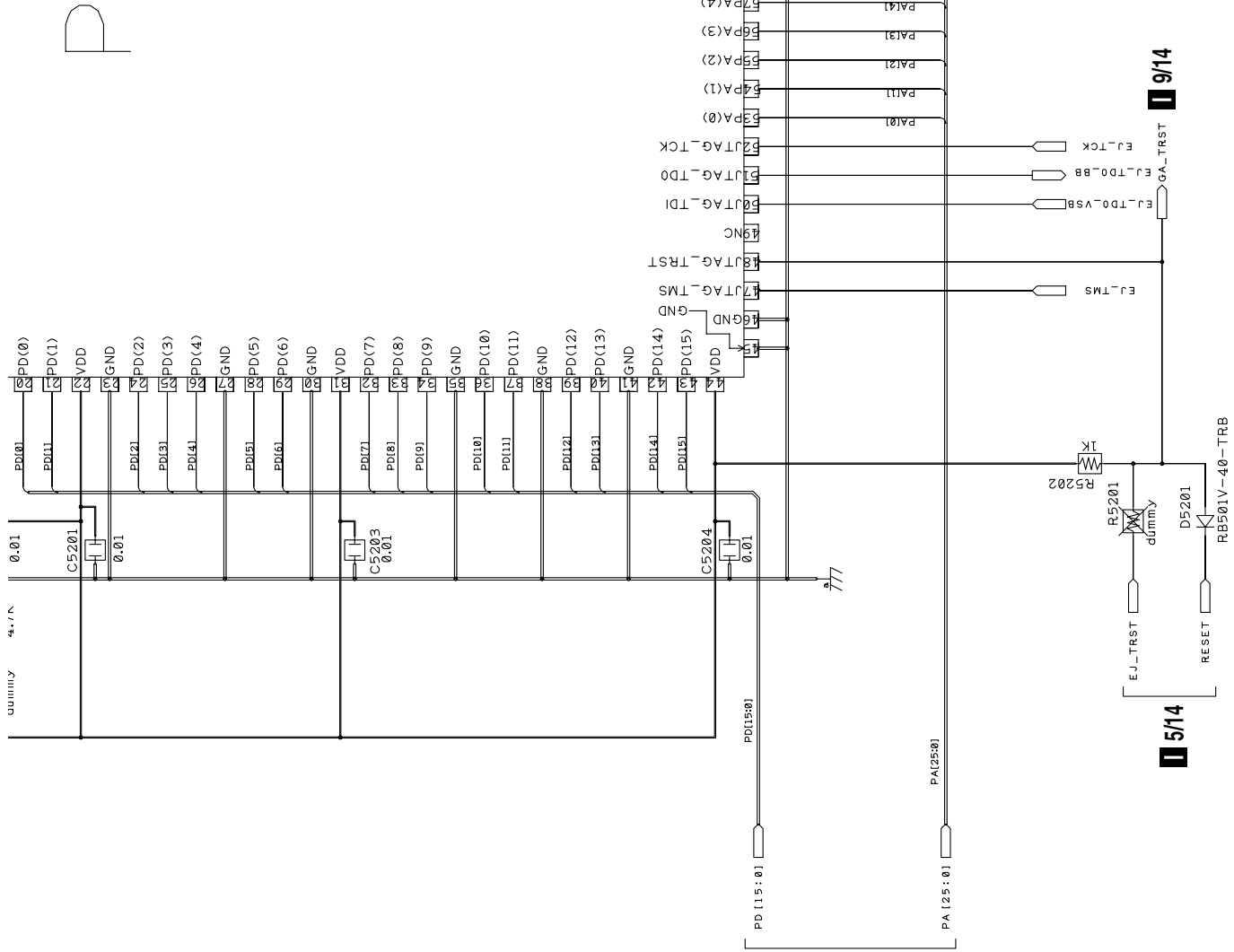




5/14




5/14



5/14

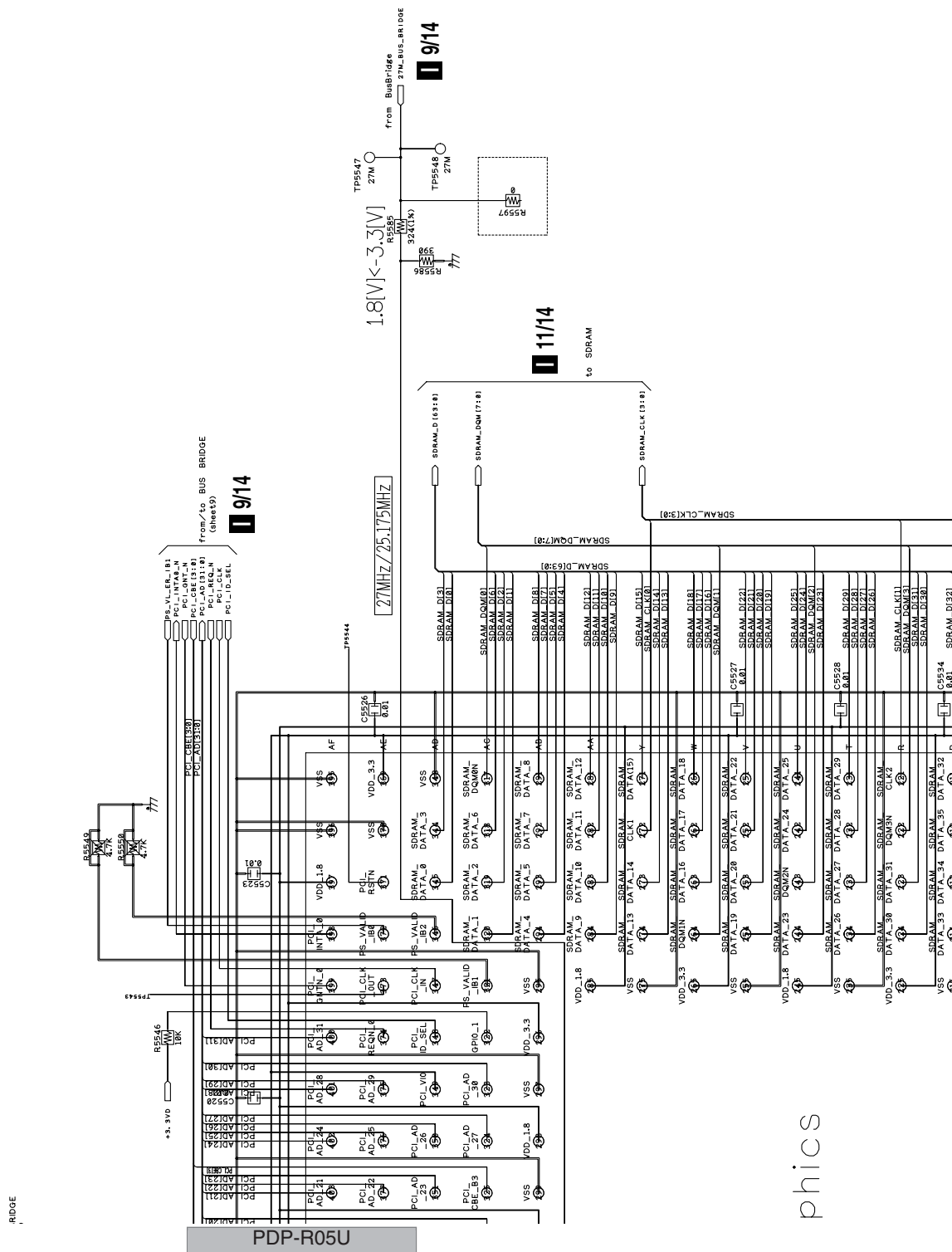
9/14

10/14 TUNER BOARD ASSY (AWE1300)

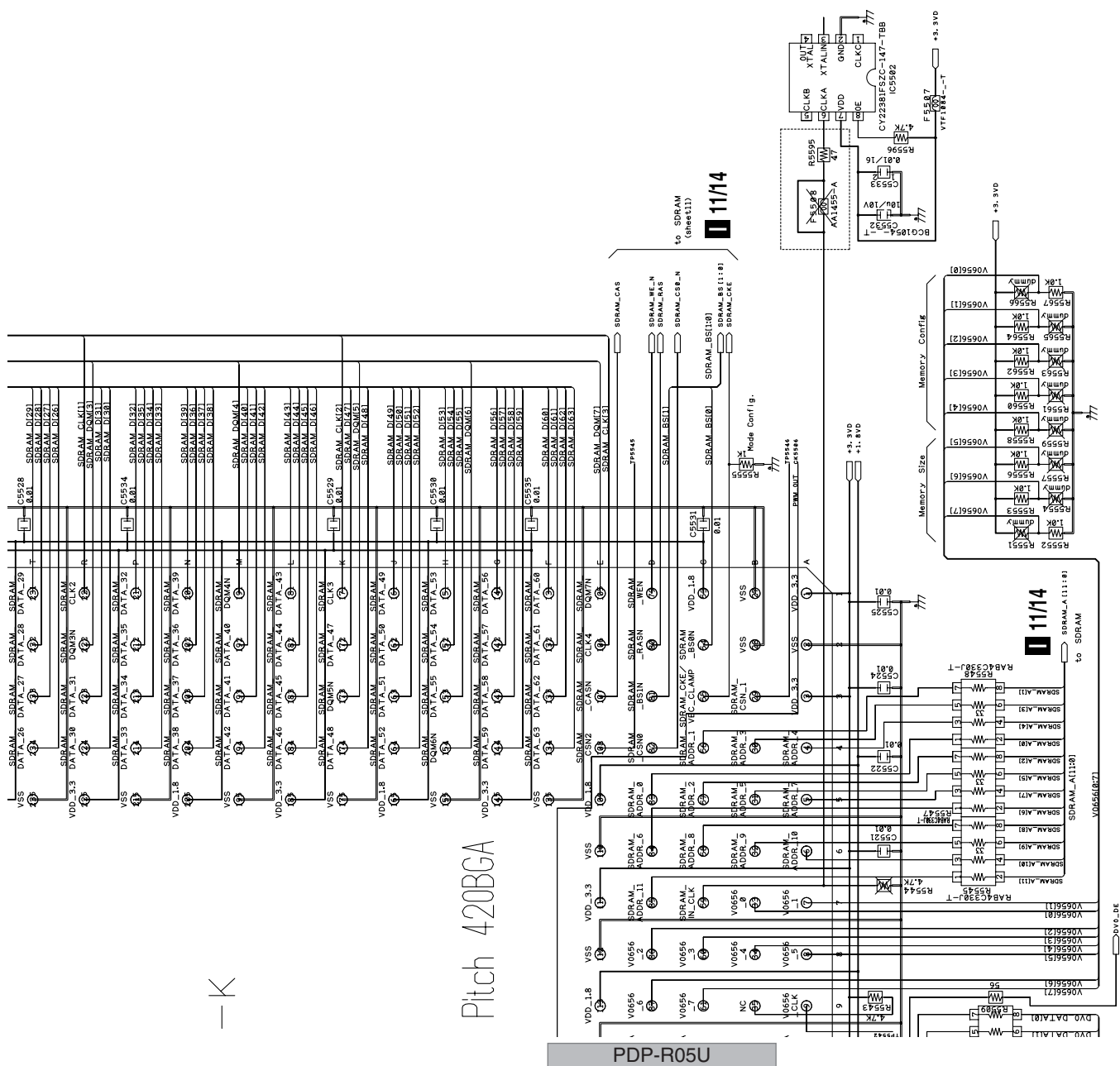
 $\frac{1}{2}$

2/2

1/2



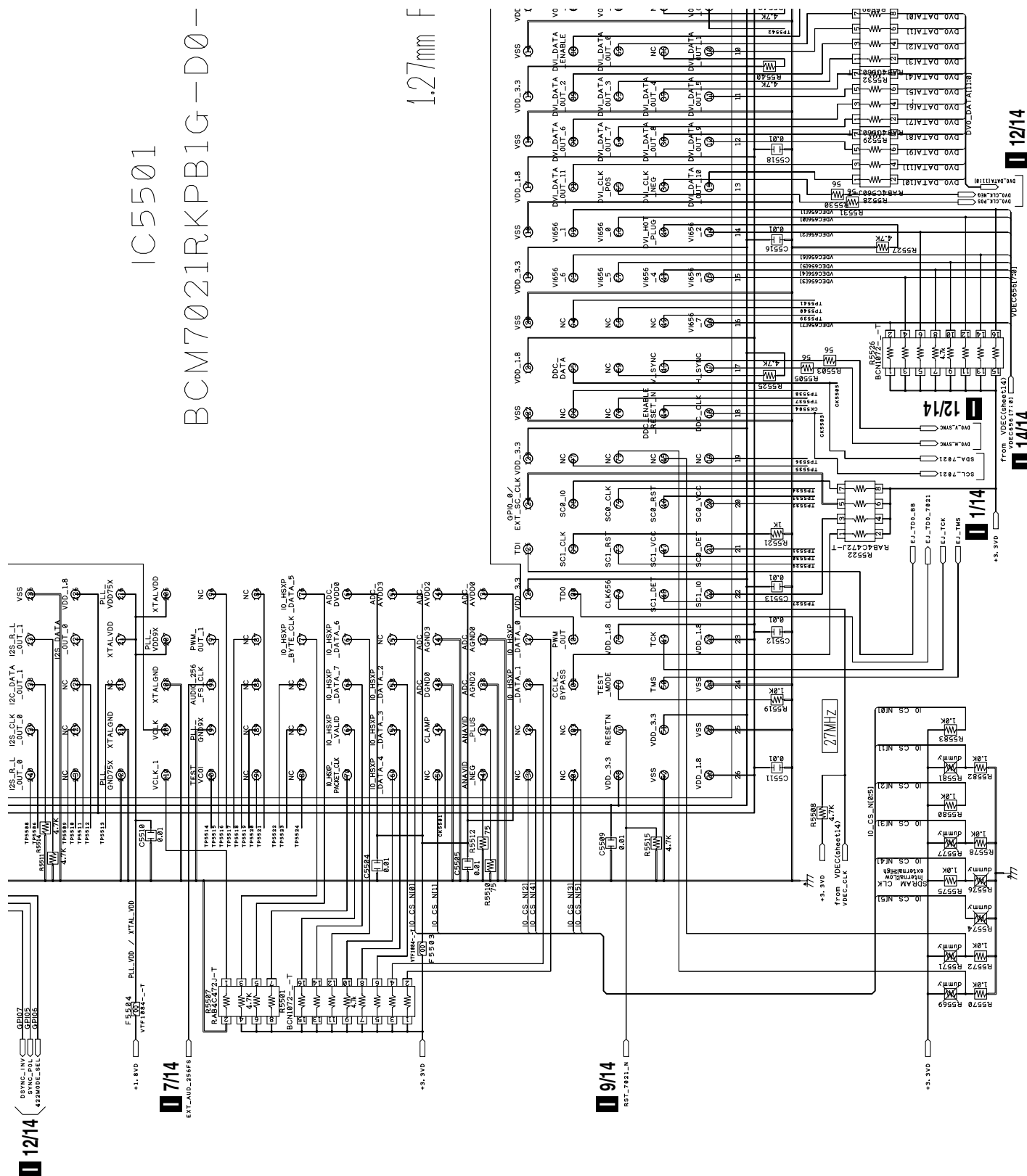
Shin



2/2



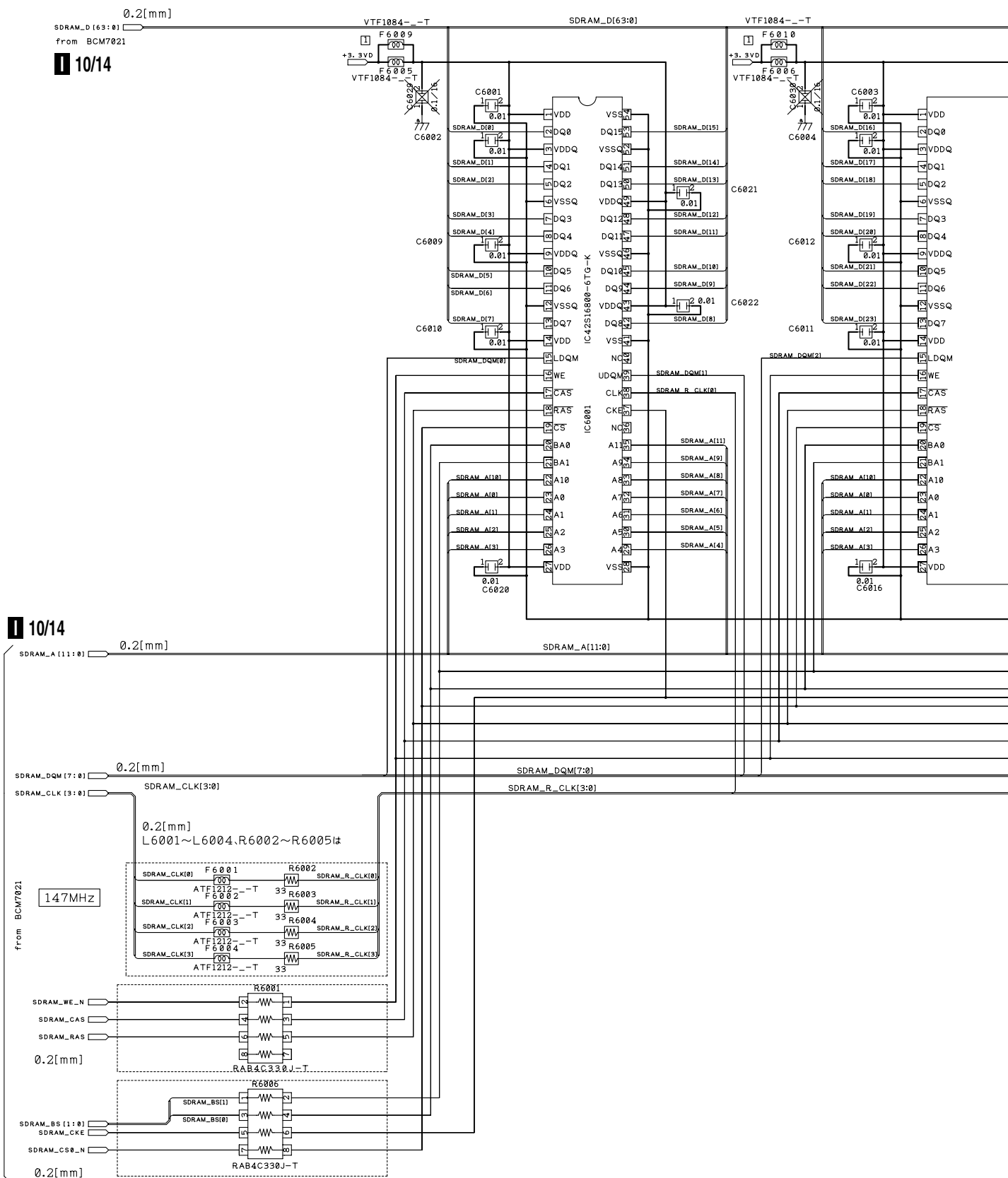
10/14



3.36 TUNER BOARD ASSY (11/14)

11/14 DTV TUNER BOARD ASSY (AWE1300)

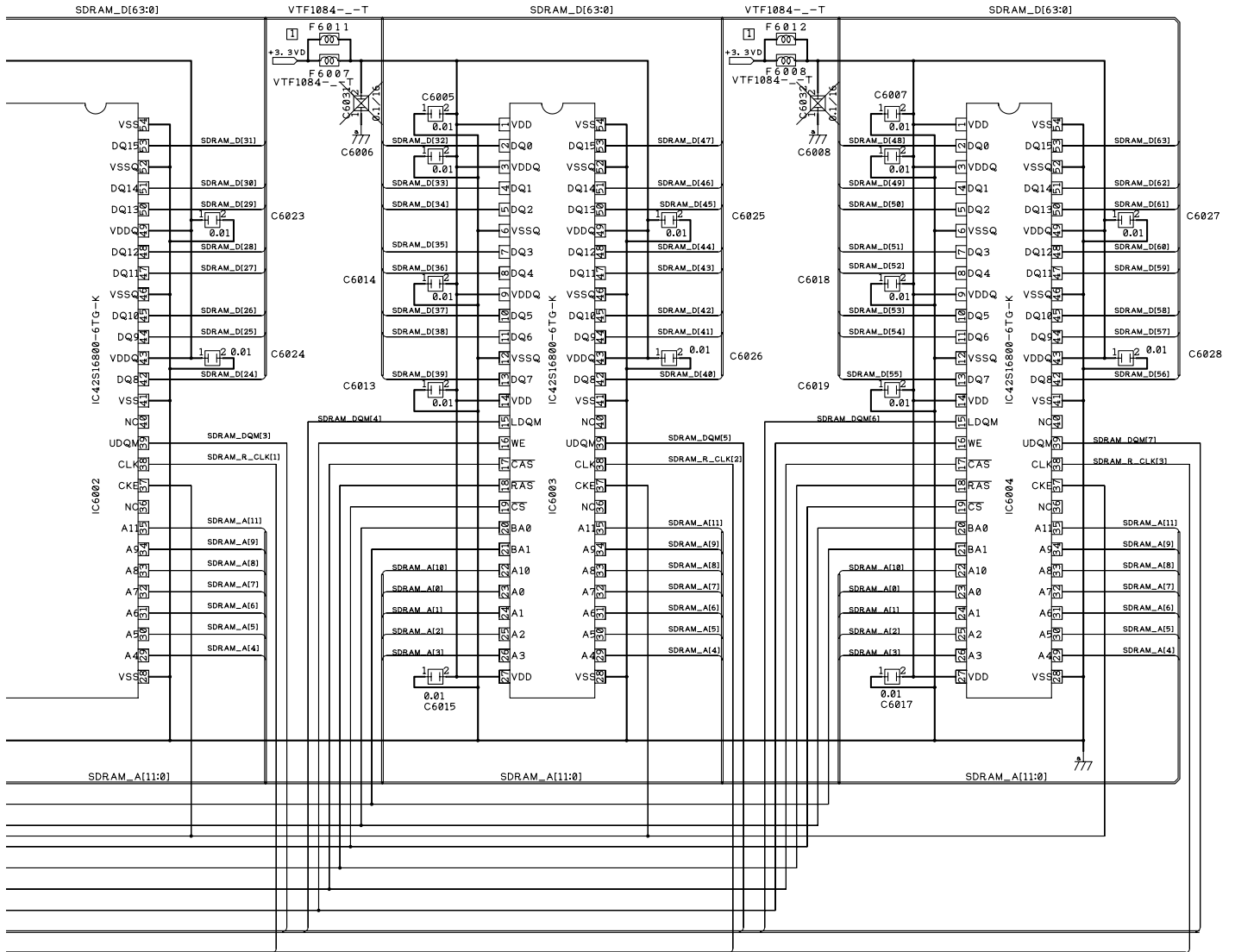
SDRAM(x4)=880[mA]@AutoRefresh



11/14

SDRAM on BCM7021

128Mbit x 4pcs



3.37 TUNER BOARD ASSY (12/14)

12/14 TUNER BOARD ASSY (AWE1300)

Large size
SCH diagram

1/2

2/2

1/2

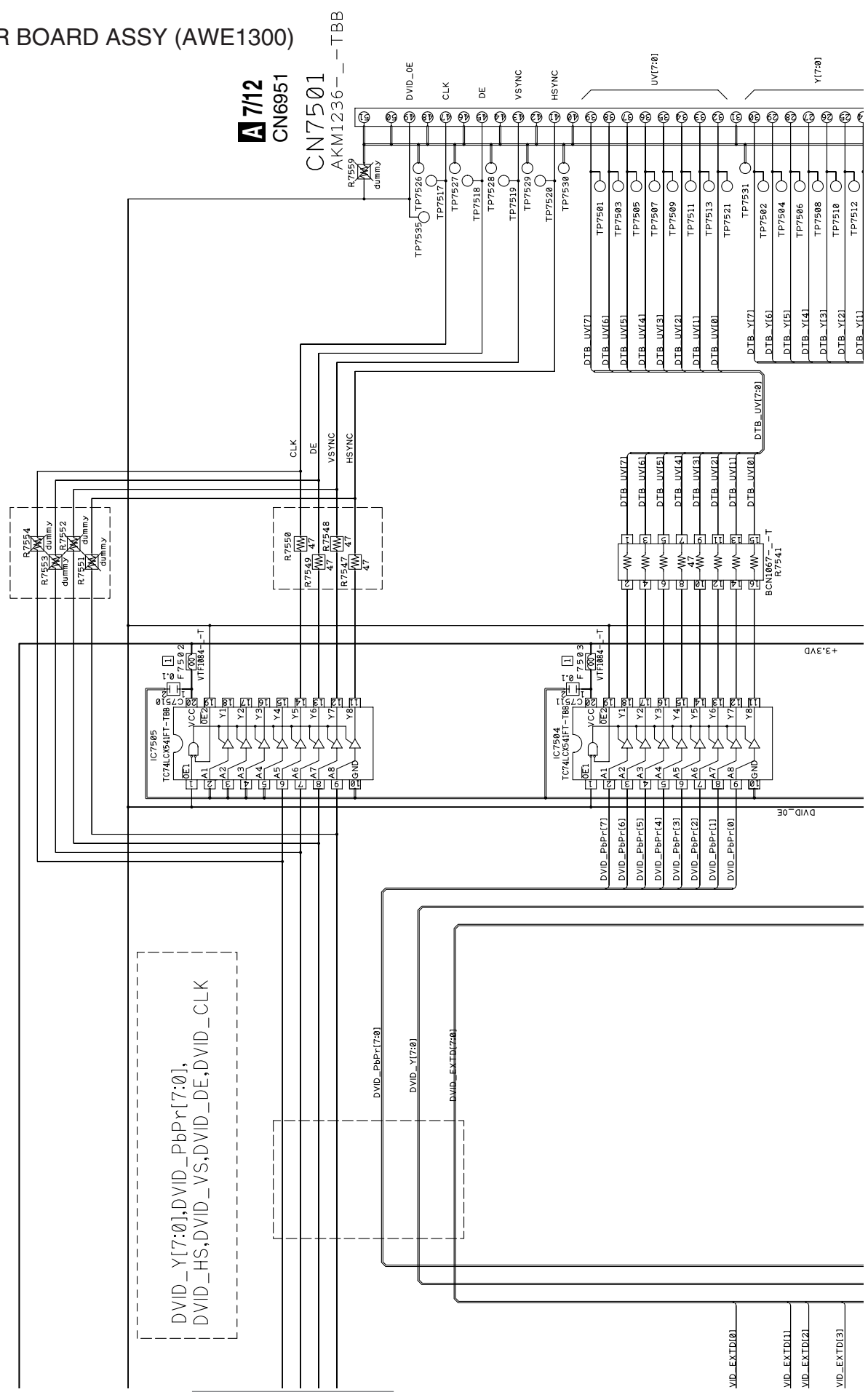
A7/12
CN6951

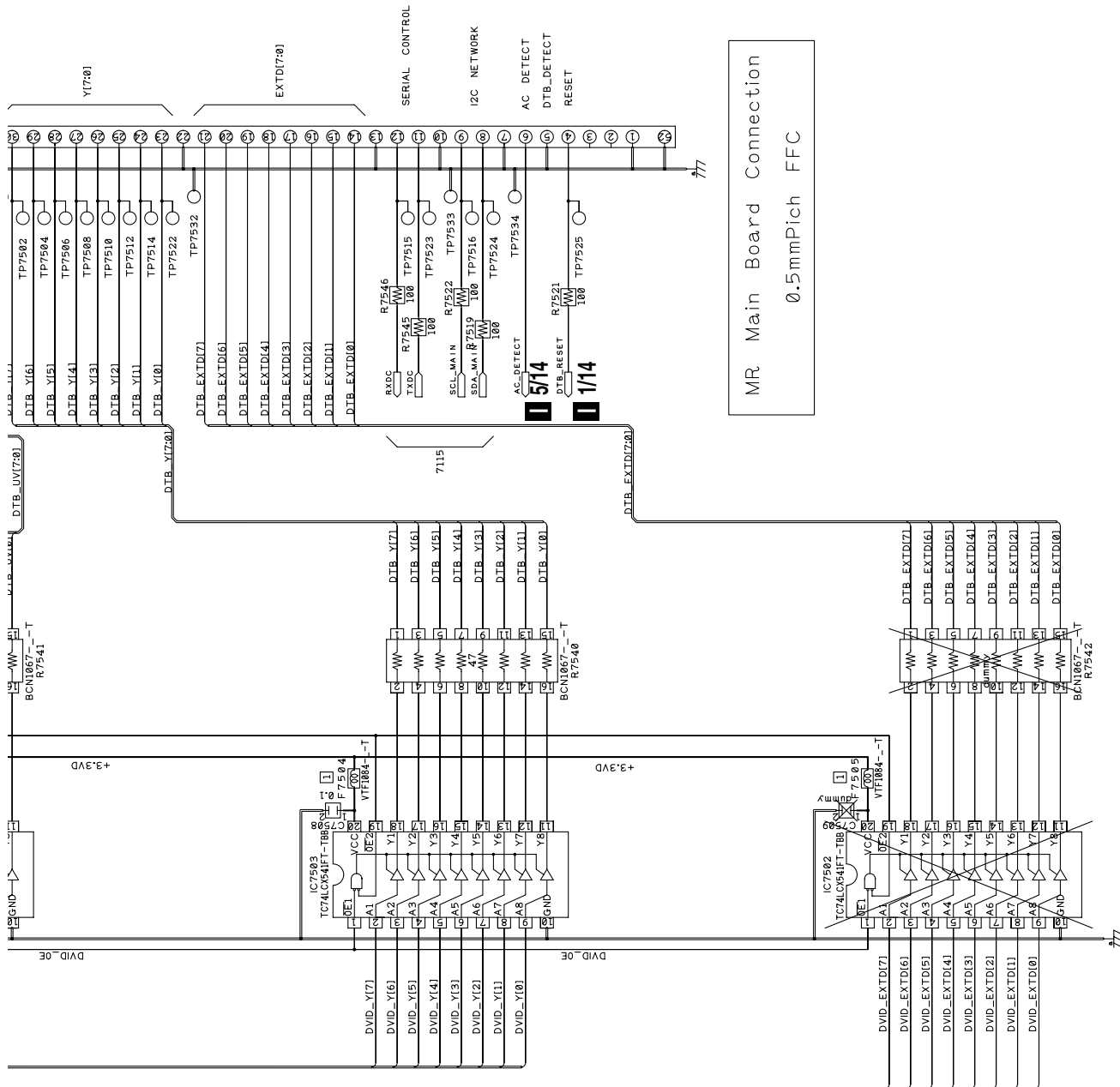
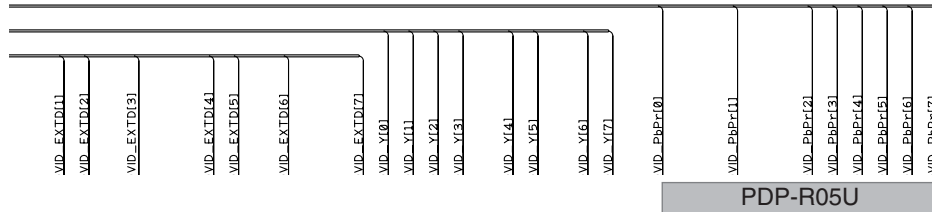
CN7501
AKM1236--TBB

DVID_Y[7:0],DVID_PbPr[7:0],
DVID_HS,DVID_VS,DVID_DE,DVID_CLK

PDP-R05U

VID_EXTID[0]
VID_EXTID[1]
VID_EXTID[2]
VID_EXTID[3]





A
B
C
D
E
F

A

B

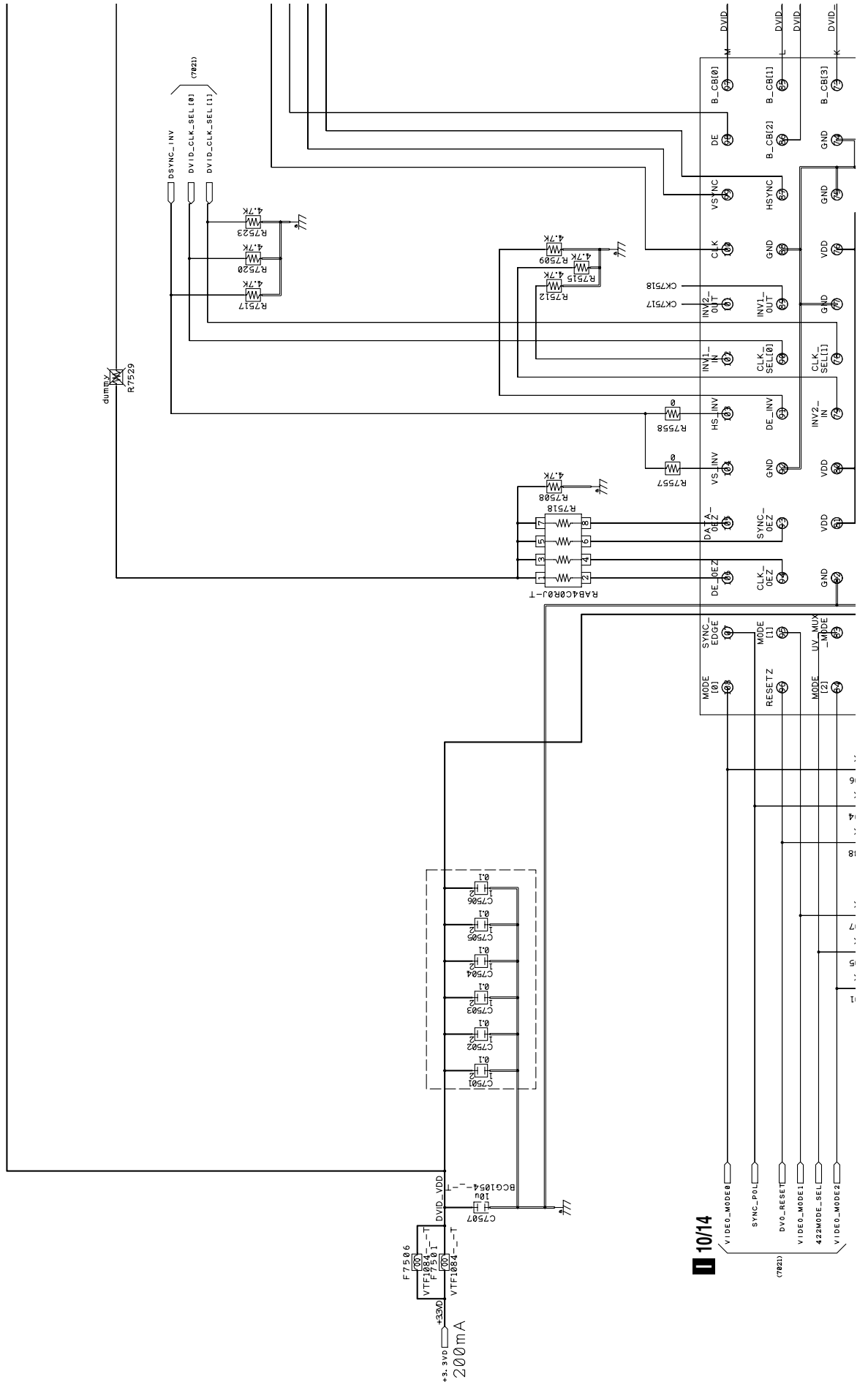
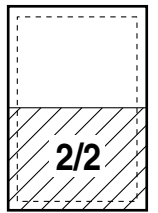
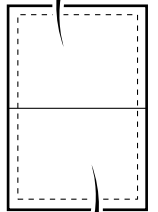
C

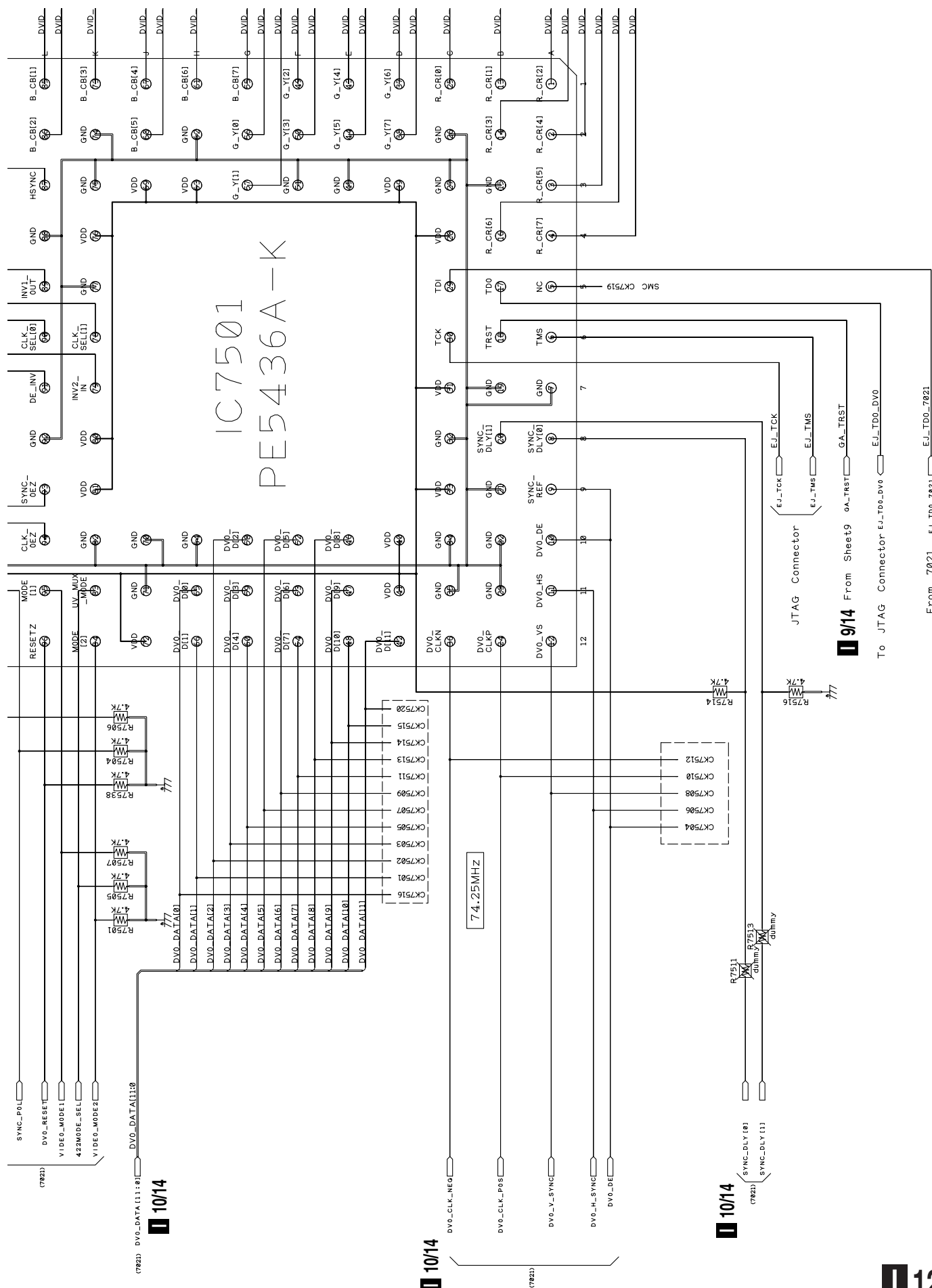
D

E

F

Large size
SCH diagram





I 13/14 DTV TUNER BOARD ASSY (AWE1300)





I 14/14 DTV TUNER BOARD ASSY (AWE1300)

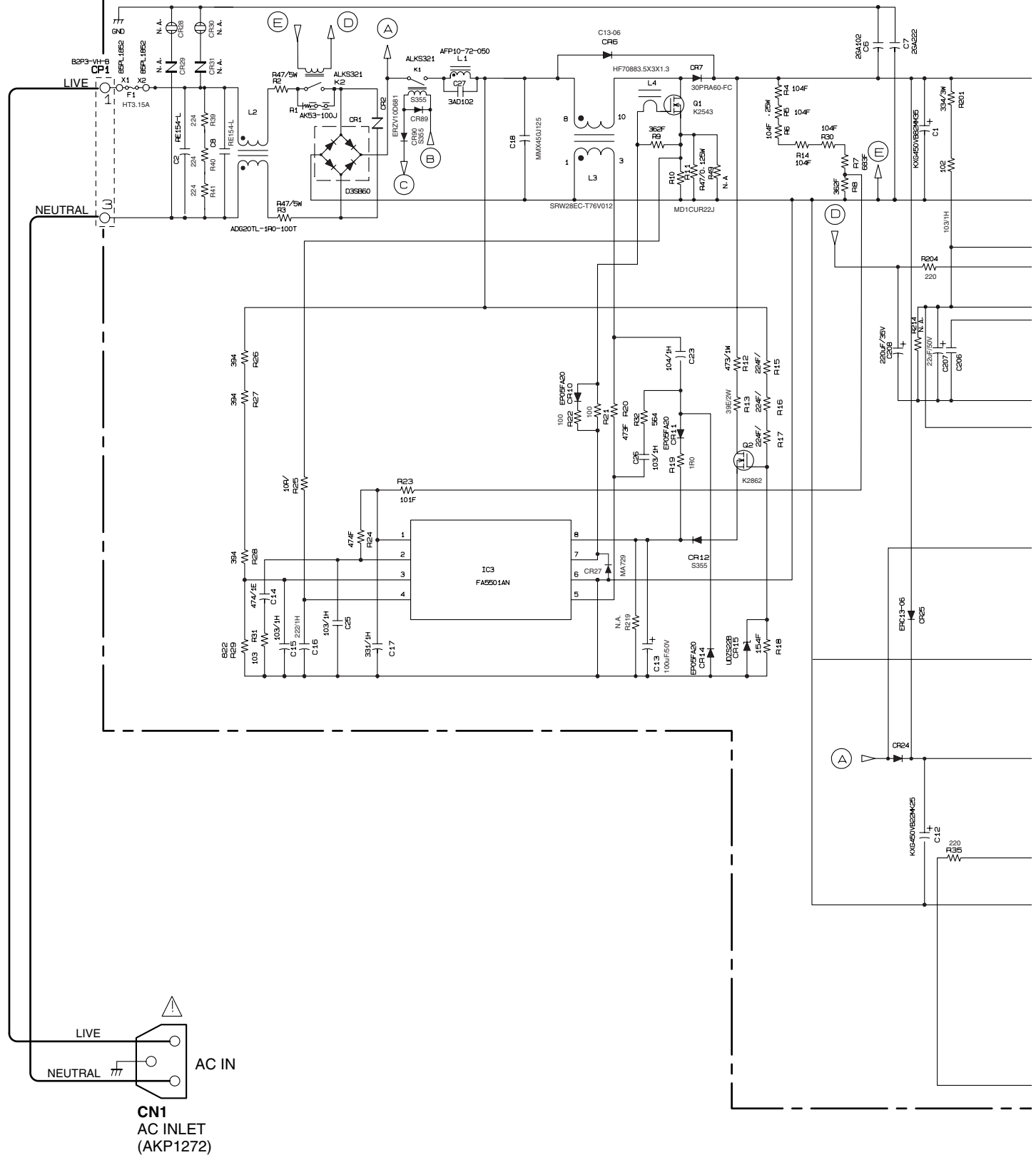


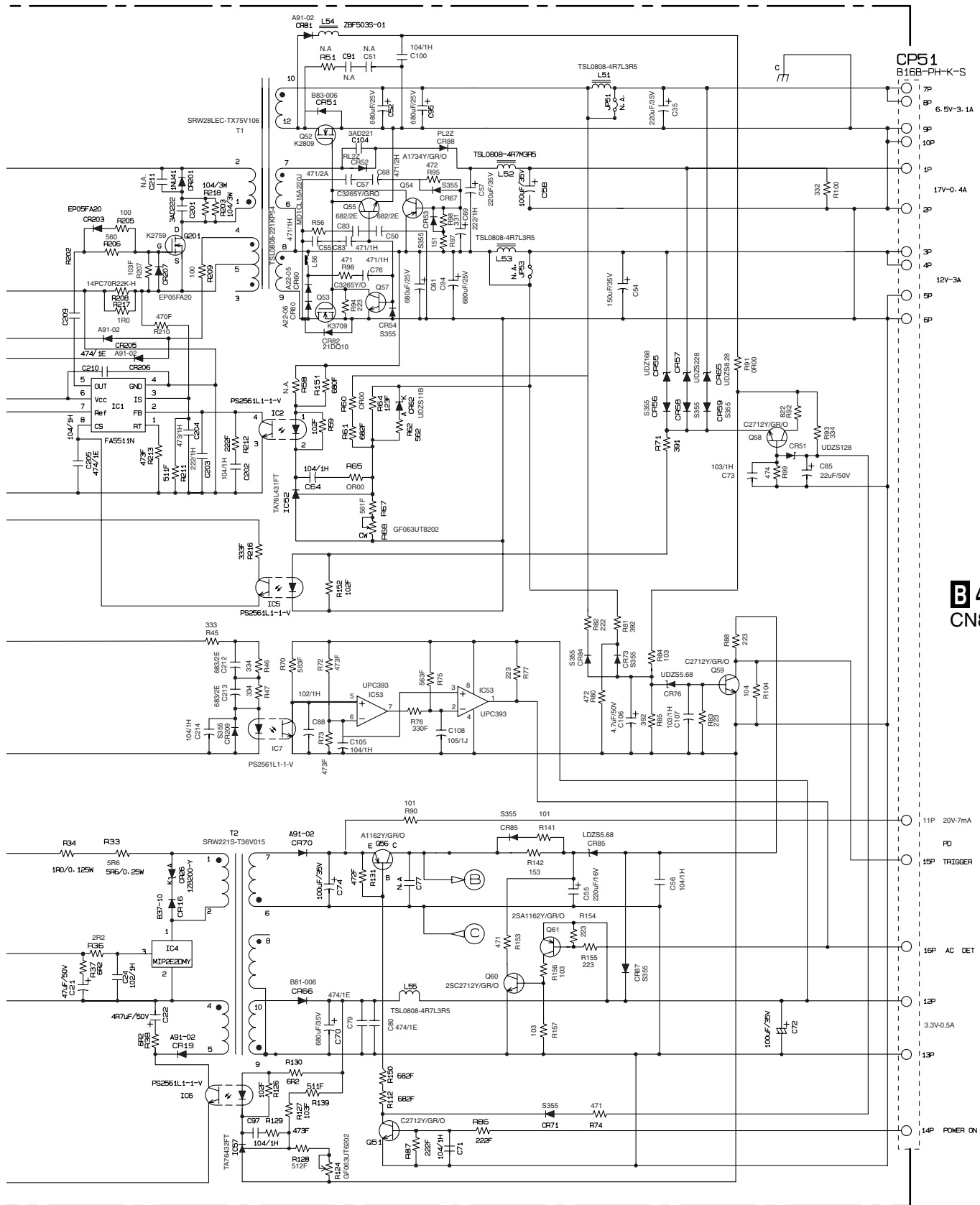
IC8501
TC90A92AFG-K



3.40 POWER SUPPLY UNIT

K POWER SUPPLY UNIT (AXY1091)



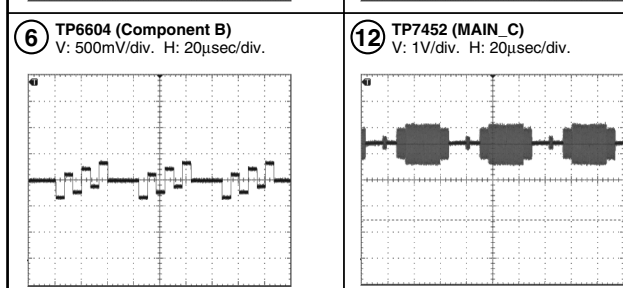
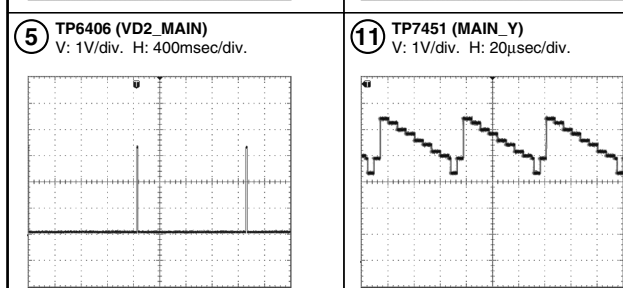
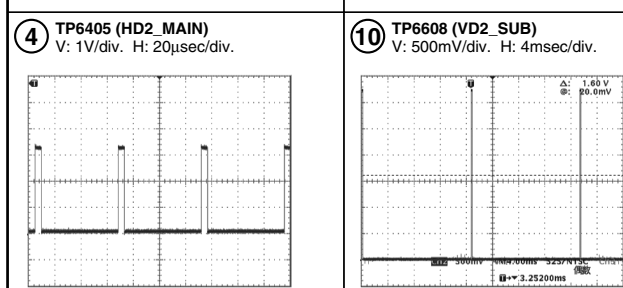
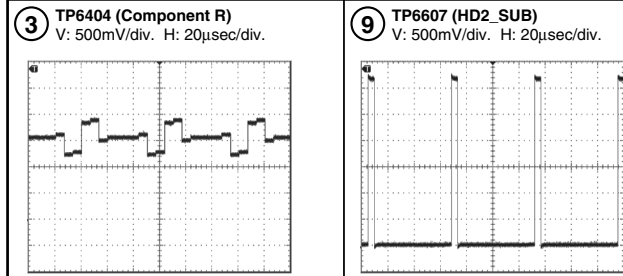
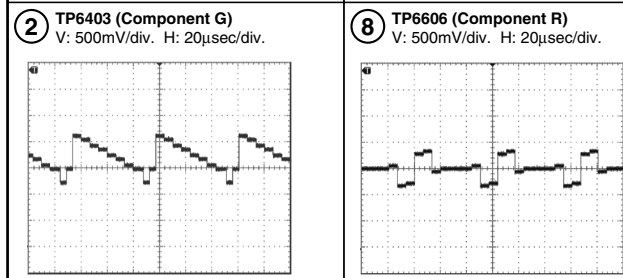
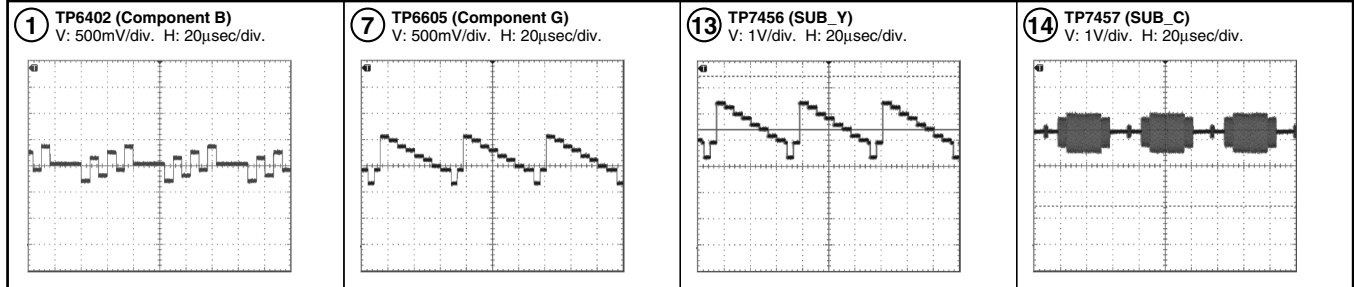


B 4/8
CN8501

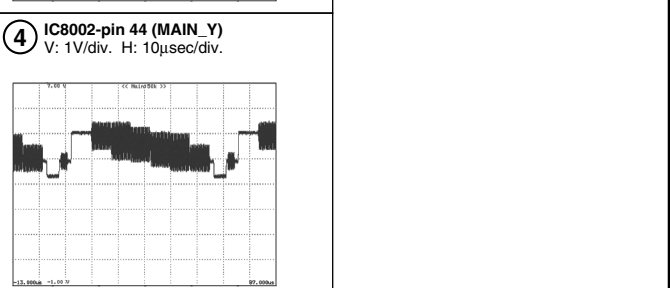
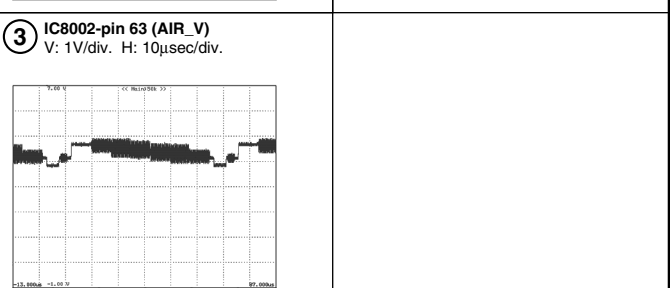
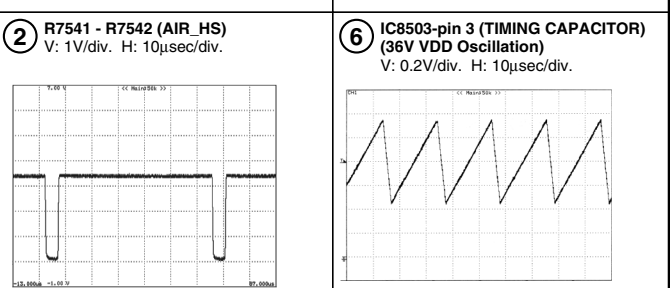
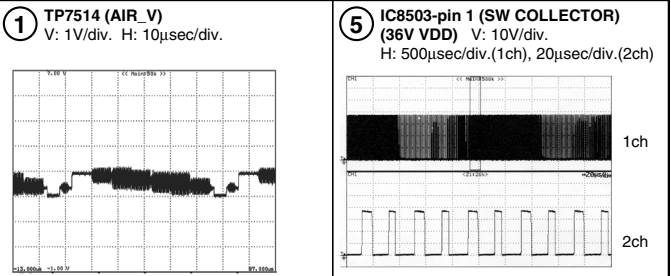
3.41 WAVEFORMS

Note : The encircled numbers denote measuring point in the schematic diagram.

A MR MAIN BOARD ASSY



B AV BOARD ASSY



3.42 VOLTAGES

B AV BOARD ASSY

CN8652 (AKM1201)		Voltage (V)	CN7455 (AKM1201)	
No.	Name		Name	No.
1	GND	0	GND	50
2	GND	0	GND	49
3	AUDIO_R	0	AUDIO_R	48
4	GND	0	GND	47
5	AUDIO_L	0	AUDIO_L	46
6	GND	0	GND	45
7	HDMI_RCH	0	HDMI_RCH	44
8	GND	0	GND	43
9	HDMI_LCH	0	HDMI_LCH	42
10	GND	0	GND	41
11	GND	0	GND	40
12	GND	0	GND	39
13	GND	0	GND	38
14	GND	0	GND	37
15	GND	0	GND	36
16	GND	0	GND	35
17	GND	0	GND	34
18	GND	0	GND	33
19	GND	0	GND	32
20	GND	0	GND	31
21	GND	0	GND	30
22	GND	0	GND	29
23	GND	0	GND	28
24	GND	0	GND	27
25	GND	0	GND	26
26	AIR_AFT2	1.7	AIR_AFT2	25
27	AIR_HS2	0	AIR_HS2	24
28	AIR_AFT	1.8	AIR_AFT	23
29	AIR_HS	0.5	AIR_HS	22
30	RST_IF	3.3	RST_IF	21
31	TXD_WR	3.3	TXD_WR	20
32	RXD_WR	3.3	RXD_WR	19
33	SDA_AV	5	SDA_AV	18
34	SCL_AV	5	SCL_AV	17
35	RXD_IF	3.3	RXD_IF	16
36	TXD_IF	3.3	TXD_IF	15
37	CLK_IF	3.3	CLK_IF	14
38	REQ_IF	0	REQ_IF	13
39	BUSY_IF	0	BUSY_IF	12
40	CE_IF	3.3	CE_IF	11
41	RESET_TXT	3.3	RESET_TXT	10
42	RELAY	2.4	RELAY	9
43	REM_B	3.3	REM_B	8
44	PSW1	0	PSW1	7
45	PD_MAIN	0	PD_MAIN	6
46	WE_ROM	0	WE_ROM	5
47	AM_MUTE	0	AM_MUTE	4
48	N.C.	—	N.C.	3
49	N.C.	—	N.C.	2
50	ELITE_DET	AWZ6978 0V AWZ6979 3.3V	ELITE_DET	1

A MR MAIN BOARD ASSY

B AV BOARD ASSY

CN8504 (KM200NA15)		Voltage (V)	CN7451 (AKM1301)	
No.	Name		Name	No.
15	GND	0.0	GND	1
14	V+3V_STB	3.3	V+3V_STB	2
13	GND	0.0	GND	3
12	V+3V_UCOM	3.3	V+3V_UCOM	4
11	GND	0.0	GND	5
10	V+12V_16V	16.9	V+12V_16V	6
9	GND	0.0	GND	7
8	V+6V	6.7	V+6V	8
7	GND_D	0.0	GND_D	9
6	V+1V_DD	1.5	V+1V_DD	10
5	V+1V_DD	1.5	V+1V_DD	11
4	GND_D	0.0	GND_D	12
3	V+3V_DD	3.3	V+3V_DD	13
2	V+3V_DD	3.3	V+3V_DD	14
1	GND_D	0.0	GND_D	15

A MR MAIN BOARD ASSY

B AV BOARD ASSY**A** MR MAIN BOARD ASSY

CN8651 (AKM1201)		Voltage (V)	CN7454 (AKM1201)	
No.	Name		Name	No.
1	AC_DET	2.7	AC_DET	50
2	KEY_B	3.3	KEY_B	49
3	STB_MT	0	STB_MT	48
4	AC_OFF	0	AC_OFF	47
5	SDA_EP2	3.3	SDA_EP2	46
6	SCL_EP2	3.3	SCL_EP2	45
7	VCC_EP	3.3	VCC_EP	44
8	N.C.	—	N.C.	43
9	N.C.	—	N.C.	42
10	WE_TXT	0	WE_TXT	41
11	N.C.	—	N.C.	40
12	MON_MUTE	0	MON_MUTE	39
13	DSUB_DET	0	DSUB_DET	38
14	PN2	0	PN2	37
15	VD_TXT	0	VD_TXT	36
16	HD_TXT	0	HD_TXT	35
17	PCA_V_SUB	0	PCA_V_SUB	34
18	PCA_H_SUB	0	PCA_H_SUB	33
19	PCA_V	0	PCA_V	32
20	PCA_H	0	PCA_H	31
21	BLK	0	BLK	30
22	GND	0	GND	29
23	GND	0	GND	28
24	GND	0	GND	27
25	SUBC_Y	4.5	SUBC_Y	26
26	GND	0	GND	25
27	SUBC_PR	4.5	SUBC_PR	24
28	GND	0	GND	23
29	SUBC_PB	4.5	SUBC_PB	22
30	GND	0	GND	21
31	SUB_C	4.3	SUB_C	20
32	GND	0	GND	19
33	SUB_Y	3.7	SUB_Y	18
34	GND	0	GND	17
35	G_CCTXT	1.3	G_CCTXT	16
36	GND	0	GND	15
37	R_CCTXT	1.3	R_CCTXT	14
38	GND	0	GND	13
39	B_CCTXT	1.3	B_CCTXT	12
40	GND	0	GND	11
41	MAINC_Y	4.5	MAINC_Y	10
42	GND	0	GND	9
43	MAINC_PR	4.5	MAINC_PR	8
44	GND	0	GND	7
45	MAINC_PB	4.5	MAINC_PB	6
46	GND	0	GND	5
47	MAIN_C	4.4	MAIN_C	4
48	GND	0	GND	3
49	MAIN_Y	4.4	MAIN_Y	2
50	GND	0	GND	1

I TUNER BOARD ASSY**A** MR MAIN BOARD ASSY

CN7501 (AKM1236)		Voltage (V)	CN6951 (AKM1201)	
No.	Name		Name	No.
1	GND	0	GND_D	50
2	N.C.	—	N.C.	49
3	Not used		Not used	48
4	RESET	3.37	RST_DT	47
5	DTB_DET	0	DT_DET	46
6	N.C.	—	N.C.	45
7	GND	0	GND_D	44
8	N.C.	—	N.C.	43
9	N.C.	—	N.C.	42
10	GND	0	GND_D	41
11	TXDC	3.3	RXD_DT	40
12	RXDC	3.3	TXD_DT	39
13	GND	0	GND_D	38
14	—	—	—	37
15	GND	0	GND_D	36
16	GND	0	GND_D	35
17	GND	0	GND_D	34
18	GND	0	GND_D	33
19	GND	0	GND_D	32
20	GND	0	GND_D	31
21	GND	0	GND_D	30
22	GND	0	GND_D	29
23	Y0	0/3.3	Y0	28
24	Y1	0/3.3	Y1	27
25	Y2	0/3.3	Y2	26
26	Y3	0/3.3	Y3	25
27	Y4	0/3.3	Y4	24
28	Y5	0/3.3	Y5	23
29	Y6	0/3.3	Y6	22
30	Y7	0/3.3	Y7	21
31	GND	0	GND_D	20
32	UV0	0/3.3	UV0	19
33	UV1	0/3.3	UV1	18
34	UV2	0/3.3	UV2	17
35	UV3	0/3.3	UV3	16
36	UV4	0/3.3	UV4	15
37	UV5	0/3.3	UV5	14
38	UV6	0/3.3	UV6	13
39	UV7	0/3.3	UV7	12
40	GND	0	GND_D	11
41	HS	3.1	HS	10
42	GND	0	GND_D	9
43	VS	3.2	VS	8
44	GND	0	GND_D	7
45	DE	2.6	DE	6
46	GND	0	GND_D	5
47	CLK	1.6	CLK	4
48	GND	0	GND_D	3
49	OE_B	0	OE_B	2
50	GND	0	GND_D	1

A MR MAIN BOARD ASSY

FAN MOTOR

CN7202 , CN7204 (AKM1274)		Voltage (V)	CN6951 (AKM1201)	
No.	Name		Name	No.
1	FAN_12V	6.9		
2	FAN_NG	0		
3	GND	0		

B AV BOARD ASSY

CN8656 (KM200NA7)		Voltage (V)	CN7651 (AKM1293-A-TBB)	
No.	Name		Name	No.
1	V+3V_STB	3.3	V+3V_STB	1
2	LED_G	0	LED_G	2
3	LED_R	3.3	LED_R	3
4	GND	0	GND	4
5	LED_MDM	0	LED_MDM	5
6	LED_FCT	3.3	LED_FCT	6
7	GND	0.0	GND	7

H LED ASSY**B** AV BOARD ASSY

CN8502 (KM200NA12)		Voltage (V)	CN1002 (AKM1298-A-TBB)	
No.	Name		Name	No.
1	NC	—	NC	1
2	GHD_D	0	GHD_D	2
3	V+3.3VA	3.3	V+3.3VA	3
4	GND_D	0.0	GND_D	4
5	V+5VA	5	V+5VA	5
6	GND_D	0	GND_D	6
7	V+6.5VA	6.8	V+6.5VA	7
8	GND_D	0.0	GND_D	8
9	V+12V	12	V+12V	9
10	GND_D	0.0	GND_D	10
11	V+30V	31	V+30V	11
12	GND_D	0.0	GND_D	12

I TUNER BOARD ASSY**B** AV BOARD ASSY**K** POWER SUPPLY UNIT

CN8501 (KM200NA16)		Voltage (V)	CP51 (KM200NA16)	
No.	Name		Name	No.
1	V+16.5V	17.6	V+16.5V	1
2	GND	0	GND	2
3	V+12V	12	V+12V	3
4	V+12V	12	V+12V	4
5	GND	0	GND	5
6	GND	0	GND	6
7	V+6.5V	6.8	V+6.5V	7
8	V+6.5V	6.8	V+6.5V	8
9	GND	0	GND	9
10	GND	0	GND	10
11	V+12V_STB	14.9	V+12V_STB	11
12	V+3V_STB	3.3	V+3V_STB	12
13	GND	0	GND	13
14	RELAY	2.4	RELAY	14
15	PD_TRIGGER	0	PD_TRIGGER	15
16	AC_DET	2.7	AC_DET	16

B AV BOARD ASSY**I** TUNER BOARD ASSY

CN8503 (KM200NA14)		Voltage (V)	CN1003 (AKM1300-A-TBB)	
No.	Name		Name	No.
1	GND_D	0	GND_D	1
2	V+6.5VD	6.8	V+6.5VD	2
3	GND_D	0	GND_D	3
4	V+5VD	5	V+5VD	4
5	GND_D	0	GND_D	5
6	V+1.8VD	1.8	V+1.8VD	6
7	GND_D	0	GND_D	7
8	V+3.3V2	3.3	V+3.3V2	8
9	GND_D	0	GND_D	9
10	V+3.3VD	3.3	V+3.3VD	10
11	V+3.3VD	3.3	V+3.3VD	11
12	GND_D	0	GND_D	12
13	V+2.5VD	2.5	V+2.5VD	13
14	GND_D	0	GND_D	14

B AV BOARD ASSY**F** SR ASSY

CN7801 (AKM1233)		Voltage (V)	CN9452 (CKS3826)	
No.	Name		Name	No.
1	NC	—	NC	12
2	NC	—	NC	11
3	TXD_SR4	0	TXD_SR4	10
4	RXD_SR4	5	RXD_SR4	9
5	5V_STD	5	5V_STD	8
6	NC	—	NC	7
7	GND	0.0	GND	6
8	REM_B	5	REM_B	5
9	SR_IN	3.3	SR_IN	4
10	GND	0.0	GND	3
11	IR	0.0	IR	2
12	GND	0.0	GND	1

A MR MAIN BOARD ASSY**E** MDR ASSY

CN7402 (AKM1234)		Voltage (V)	CN9302 (CKS3830)	
No.	Name		Name	No.
16	GND_D	0	GND_D	1
15	AUDIO_L	0	AUDIO_L	2
14	ACT3V	3.3	ACT3V	3
13	AUDIO_R	0	AUDIO_R	4
12	V+3V_UCOM	3.3	V+3V_UCOM	5
11	STB3V	3.3	STB3V	6
10	SP_MUTE	3.3	SP_MUTE	7
9	MTXD	3.3	MTXD	8
8	FIELD	0	FIELD	9
7	MRXD	3.3	MRXD	10
6	REM_B	3.3	REM_B	11
5	P_ST_B	0	P_ST_B	12
4	AC_OFF	0	AC_OFF	13
3	REQ	0	REQ	14
2	KEY_B	3.3	KEY_B	15
1	STB_MT	0	STB_MT	16

A MR MAIN BOARD ASSY

TRAP SW

CN7203 (AKM1213)		Voltage (V)		
No.	Name		Name	No.
1	TRAP_SW	0.7		
2	NC			
3	V+3V_UCOM	3.3		

B AV BOARD ASSY**G** FRONT ASSY

CN8653 (AKM1201)		Voltage (V)	CN9502 (AKM1201)	
No.	Name		Name	No.
50	V+9V_A	9	V+9V_A	1
49	V+5V_A	5.0	V+5V_A	2
48	V+3VCOM	3.3	V+3VCOM	3
47	WE_ROM	0.0	WE_ROM	4
46	PC_V	0.0	PC_V	5
45	GND	0.0	GND	6
44	PC_H	0.0	PC_H	7
43	GND	0.0	GND	8
42	NC	—	NC	9
41	GND	0.0	GND	10
40	NC	—	NC	11
39	GND	0.0	GND	12
38	NC	—	NC	13
37	GND	0.0	GND	14
36	GND	0.0	GND	15
35	PC_RCH	4.4	PC_RCH	16
34	GND	0.0	GND	17
33	PC_LCH	4.4	PC_LCH	18
32	GND	0.0	GND	19
31	V4_R	4.4	V4_R	20
30	GND	0.0	GND	21
29	V4_L	4.4	V4_L	22
28	GND	0.0	GND	23
27	GND	0.0	GND	24
26	V4_V	3.9	V4_V	25
25	GND	0.0	GND	26
24	V4_S2	0.1	V4_S2	27
23	V4_SPLUG	4.9	V4_SPLUG	28
22	GND	0.0	GND	29
21	V4_C	4.4	V4_C	30
20	GND	0.0	GND	31
19	V4_Y	3.9	V4_Y	32
18	GND	0.0	GND	33
17	GND	0.0	GND	34
16	NC	—	NC	35
15	NC	—	NC	36
14	GND	0.0	GND	37
13	NC	—	NC	38
12	GND	0.0	GND	39
11	GND	0.0	GND	40
10	Y_COMP4	4.6	Y_COMP4	41
9	GND	0.0	GND	42
8	GND	0.0	GND	43
7	PB_COMP4	4.6	PB_COMP4	44
6	GND	0.0	GND	45
5	GND	0.0	GND	46
4	PR_COMP4	4.6	PR_COMP4	47
3	GND	0.0	GND	48
2	GND	0.0	GND	49
1	COMP_PLUG	0.0	COMP_PLUG	50

A

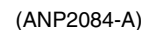
B

C

D

F

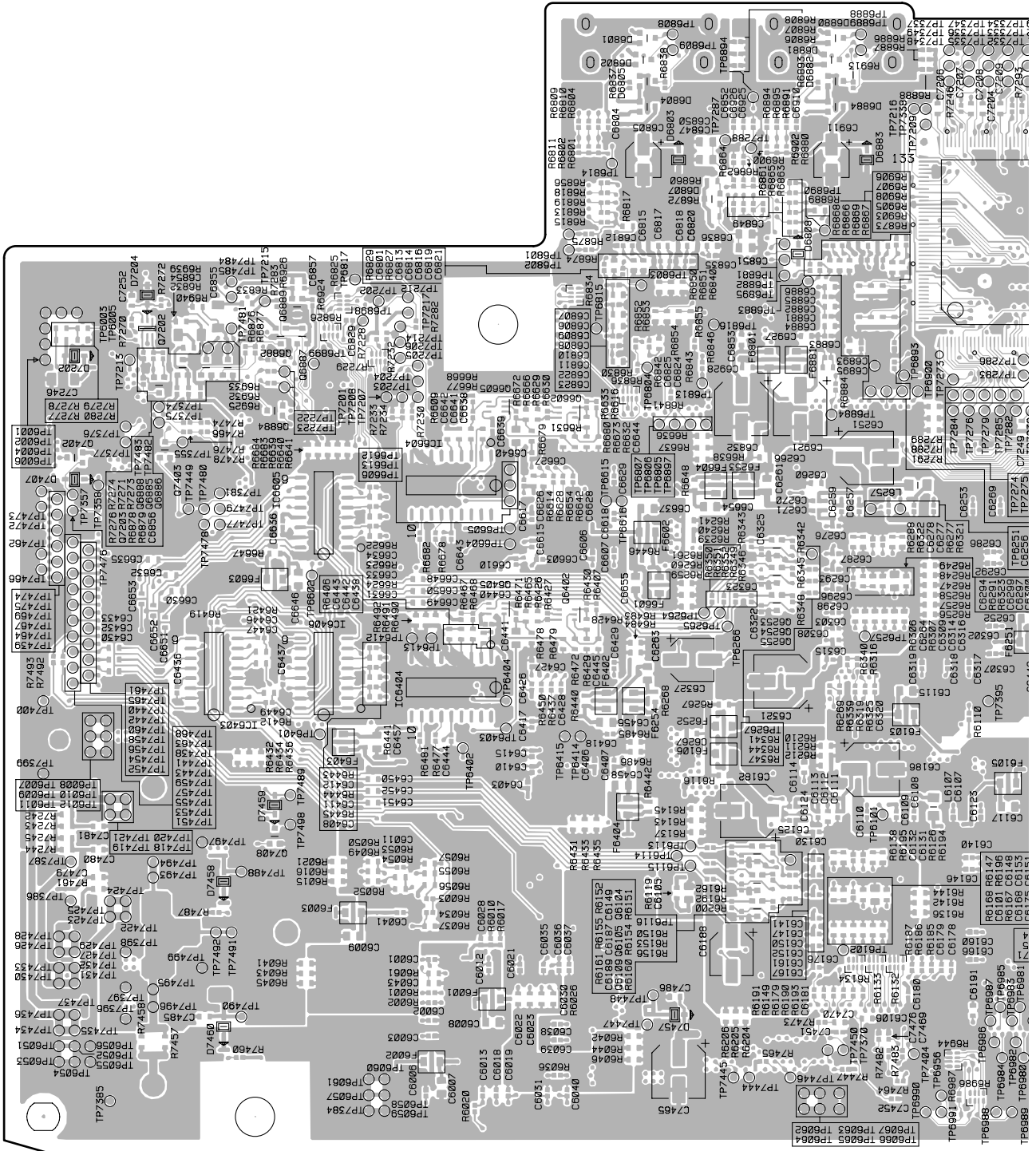
F



Q6108	Q7451	Q6880	Q6251	IC7458	Q6106	IC6001	Q6001	Q6005	IC7455	IC7209	IC7211
C6107	IC7451	IC6880	Q6252	Q6101	Q6107		Q6006	IC6601	IC7454	IC6803	
	IC6881		Q6881	Q6257	IC6602	Q6102	Q6007	IC6401	IC7453		
			IC6801	Q6256	Q6802	IC6402	IC6802				
			Q6801	Q6806	IC6804						

SIDE B

MR MAIN BOARD ASSY



Q7402	Q6886	Q7408	IC6406	IC6404	Q6405	Q6402	Q6109	Q6255
Q7203	Q7202	IC6403	Q6884	Q6887	IC6604	Q6605	Q6602	Q6105
	Q7403	Q6889	IC6605	Q6882			Q6104	Q6253

A

SIDE B

A

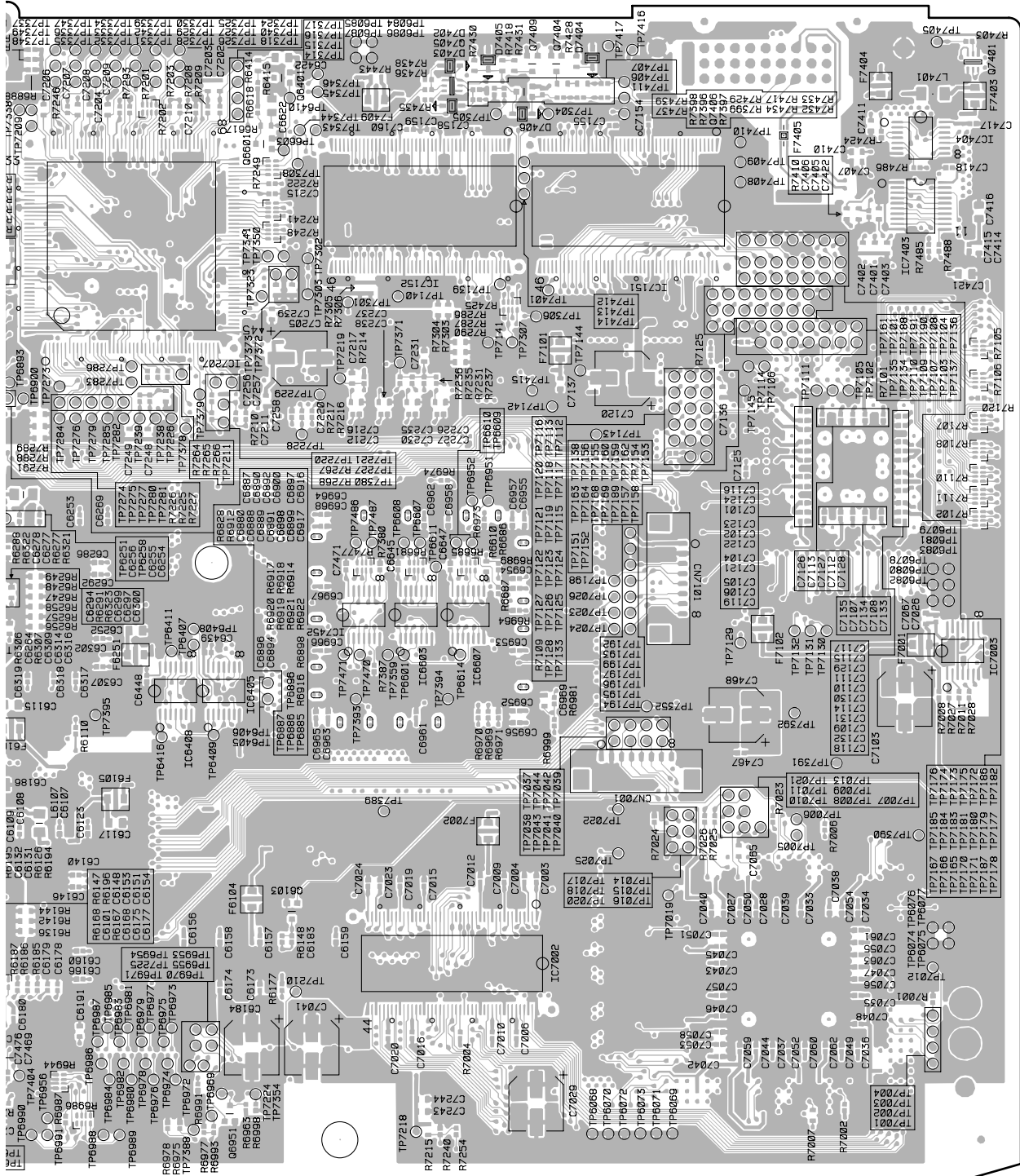
B

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F



(ANP2084-A)

IC6408 Q6103
IC6405 IC7452
IC7207 Q6601 Q6401

IC6603 IC6607 IC7002
IC7151 Q7406
Q7405 Q7409 Q7404

IC7403 IC7003
IC7404
Q7401

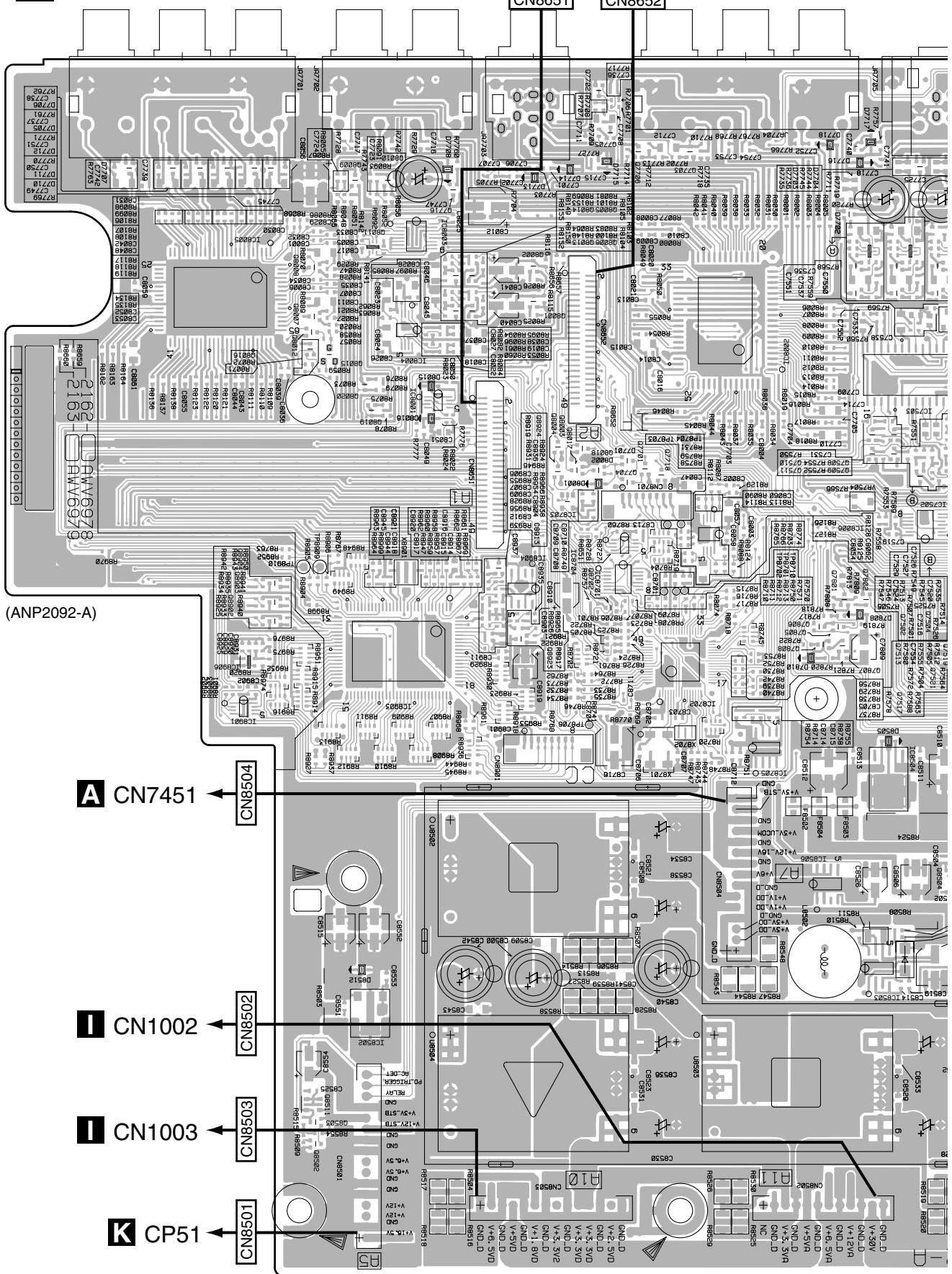
4.3 AV BOARD and SR ASSY

SIDE A

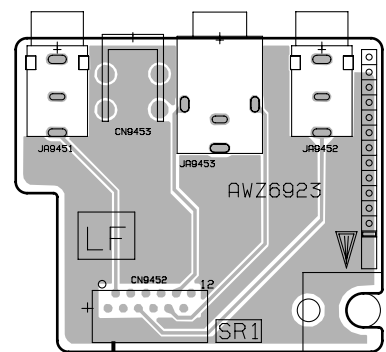
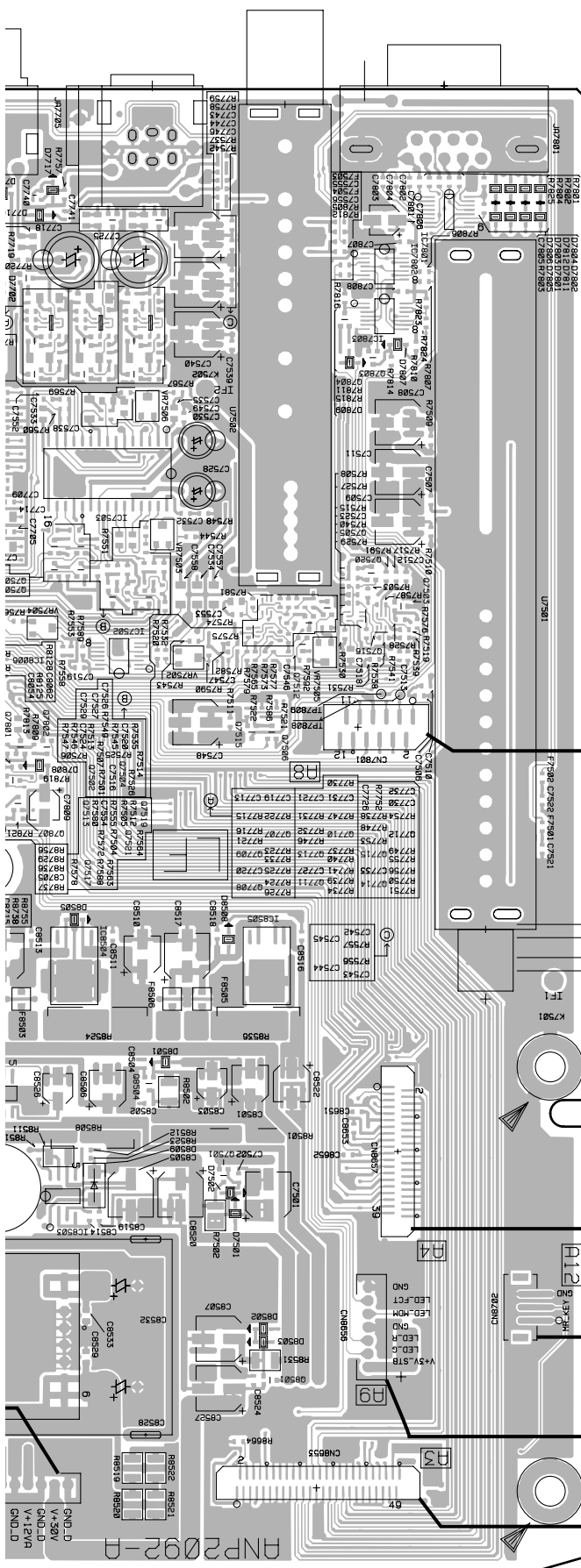
B AV BOARD ASSY

A CN7454

A CN7455



F SR ASSY

SIDE A


Q7702

IC7801
IC7802Q7705 Q8010
Q7706 Q8009
Q7703IC8003
IC8005
IC7803Q8005 Q8014
Q8013 Q8011
Q8006
Q8002 Q8008Q7803
IC8002
IC8004Q8007
Q8001
Q8012
Q8016
Q8015IC8001
IC7503Q8020
Q8924
Q8019IC7502
IC8703
IC8006
IC8904
IC8704Q7505 Q8004
Q7520 Q8003
Q8018 Q7701
Q7503 Q7718
Q7704 Q7509
Q7508
Q7511

IC8701

Q7516
Q7512 Q8904
Q7513 Q7801
Q7514 Q8702
Q7515 Q8903
Q7516 Q7802
Q7517 Q8902

IC8906

Q7504 Q7502
Q7513 Q7806
Q7519 Q7805
Q7707 Q7808IC8702
IC8903Q8923 Q7710
Q7521 Q7807
Q7709 Q7517IC8505
IC8504Q7715 Q7713
Q7714 Q7711
Q7708

IC8506

Q8504

Q7501

IC8503

IC8502

Q8511
Q8501
Q8503

Q8502

Q8502

IC8657

CN1001

CN8702

CN8703

CN8656

CN9651

CN8653

CN9502

VR7506

VR7503

VR7504

VR7502

I

J

H

G

A

B

C

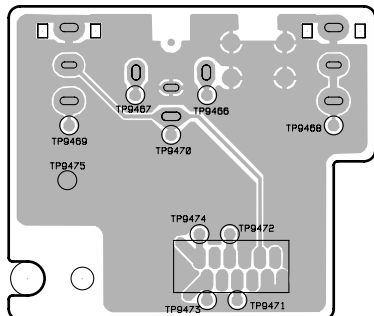
D

E

F

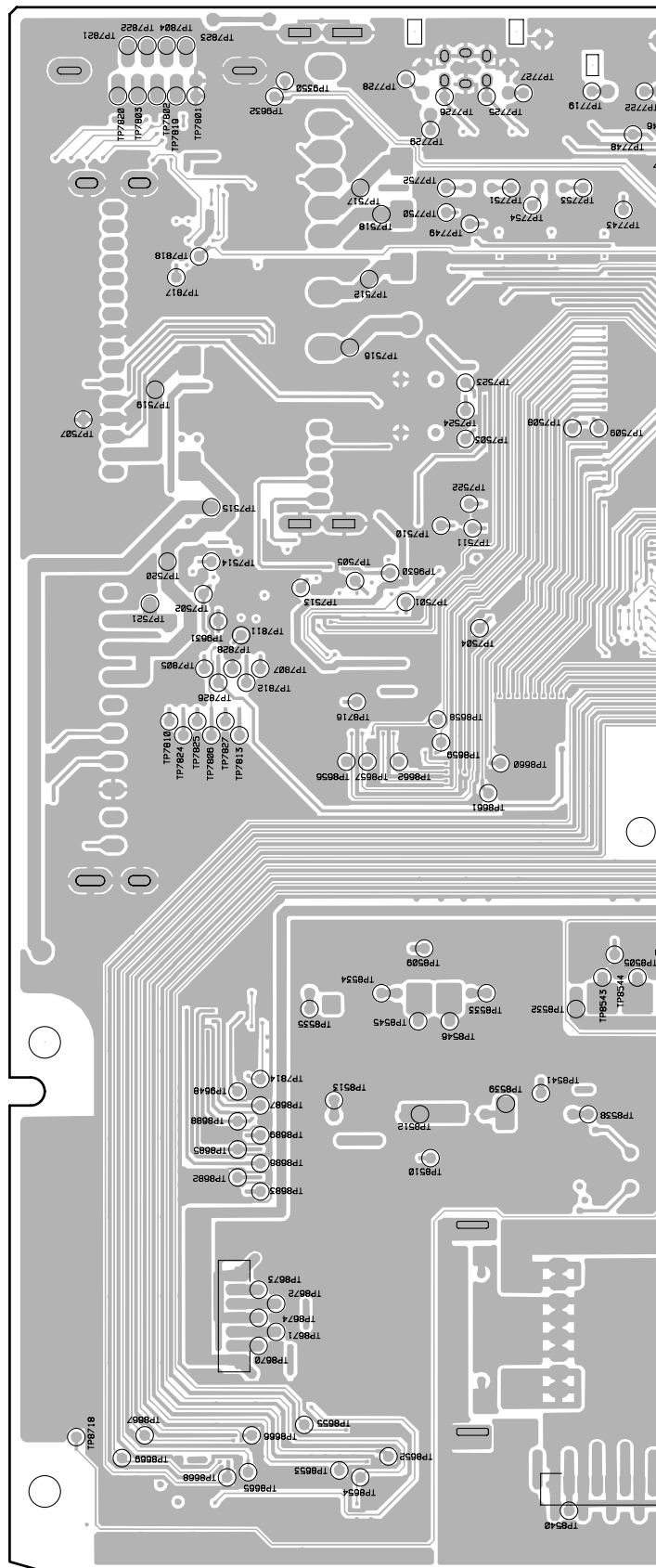
B F

SIDE B

F SR ASSY

(ANP2092-A)

CN9452



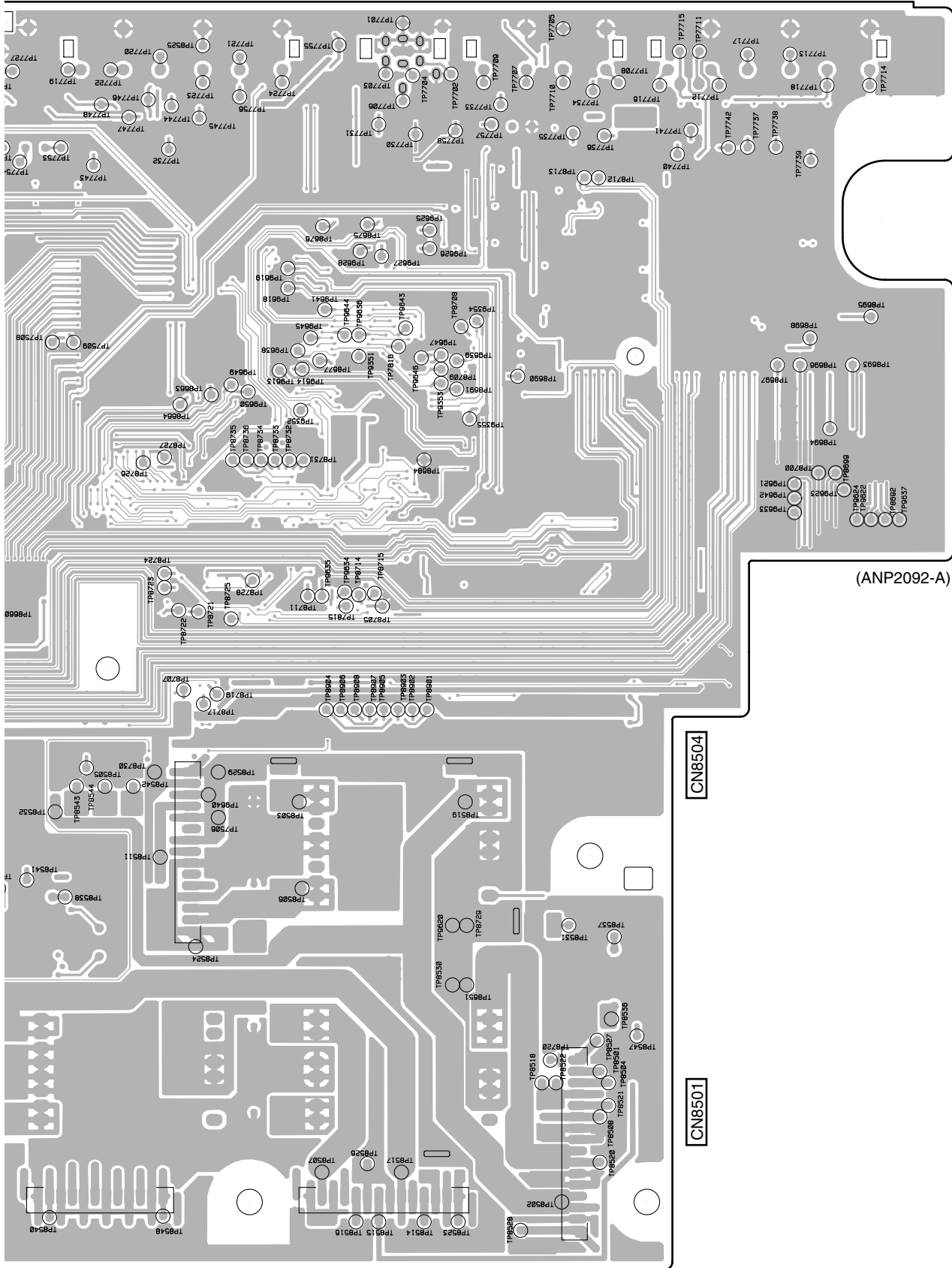
CN8656

CN8502

B F

SIDE B

AV BOARD ASSY



(ANP2092-A)

CN8504

CN8501

CN8502

CN8503

PDP-R05U

B

△

SIDE A

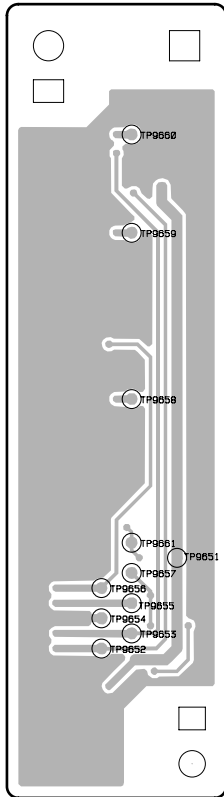
GH

SIDE B

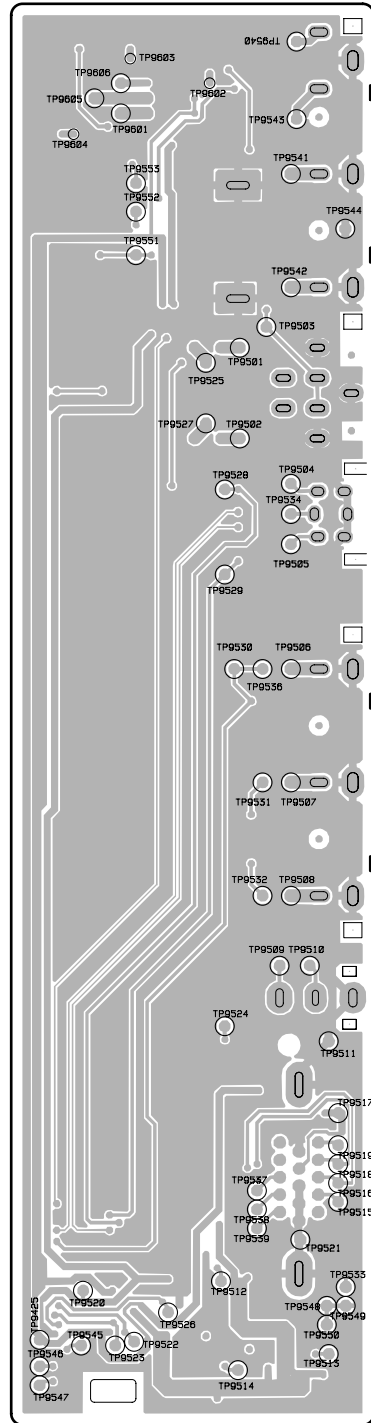
SIDE B

H LED ASSY

G FRONT ASSY



(ANP2083-A)



(ANP2083-A)

G H

G H

SIDE A

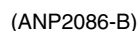
● ANP2086-A

B CN8657

PDP-R05U

A

CN7501



F

F

SIDE B

TUNER BOARD ASSY

IC6001
IC6002
IC6003
IC6004

IC3004

IC7502

IC7503
IC4610
IC7504
IC7505
Q1012

IC8004
Q1005

IC8003
IC8005
IC8002

IC2502

IC2505

IC2506

IC2503

IC8501

IC2504

IC2501

IC1008

IC1007

IC1004

IC1023

IC4007

IC4005

IC1016

Q8503

IC4503

IC4005

IC3003

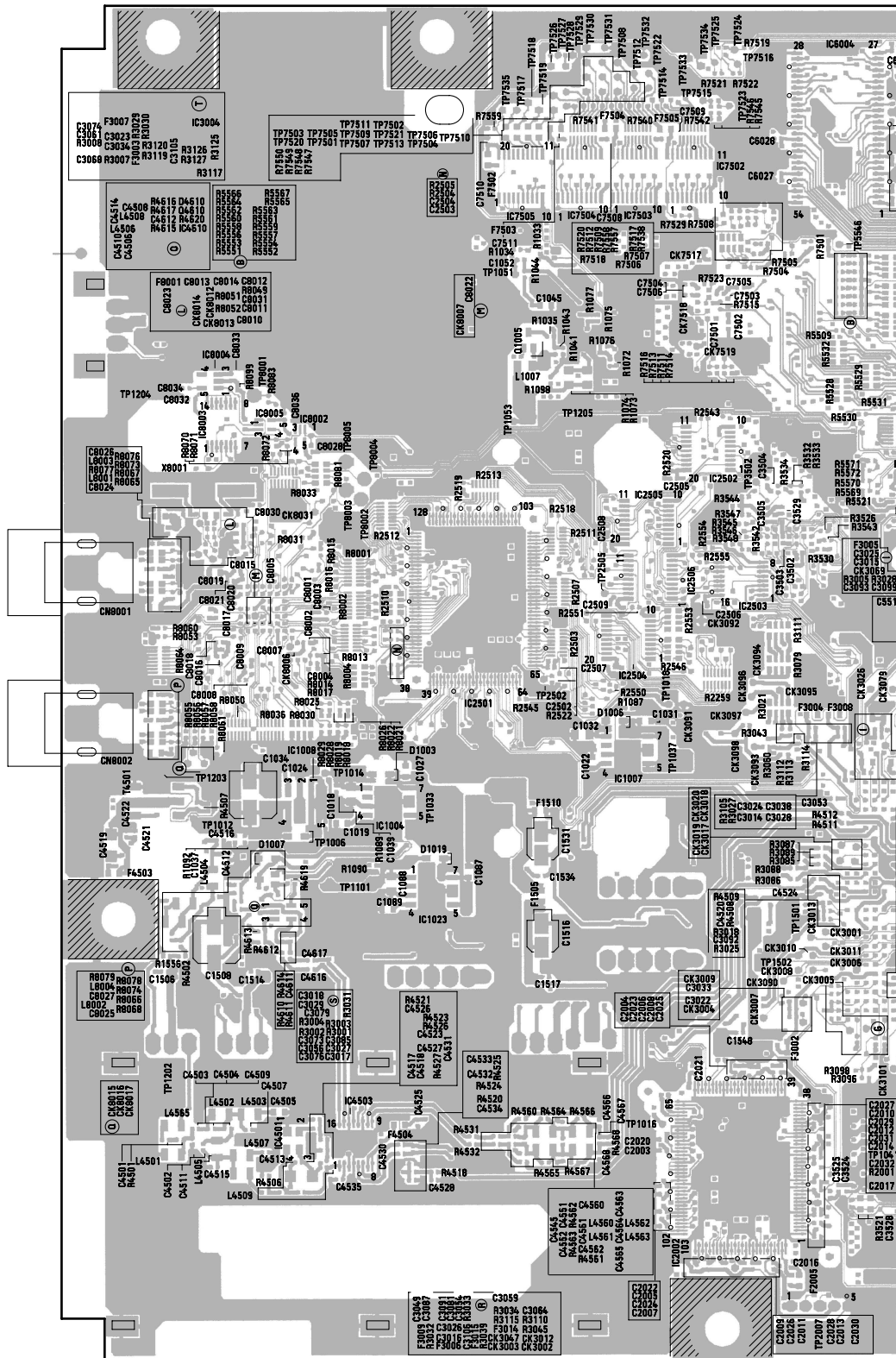
IC4501

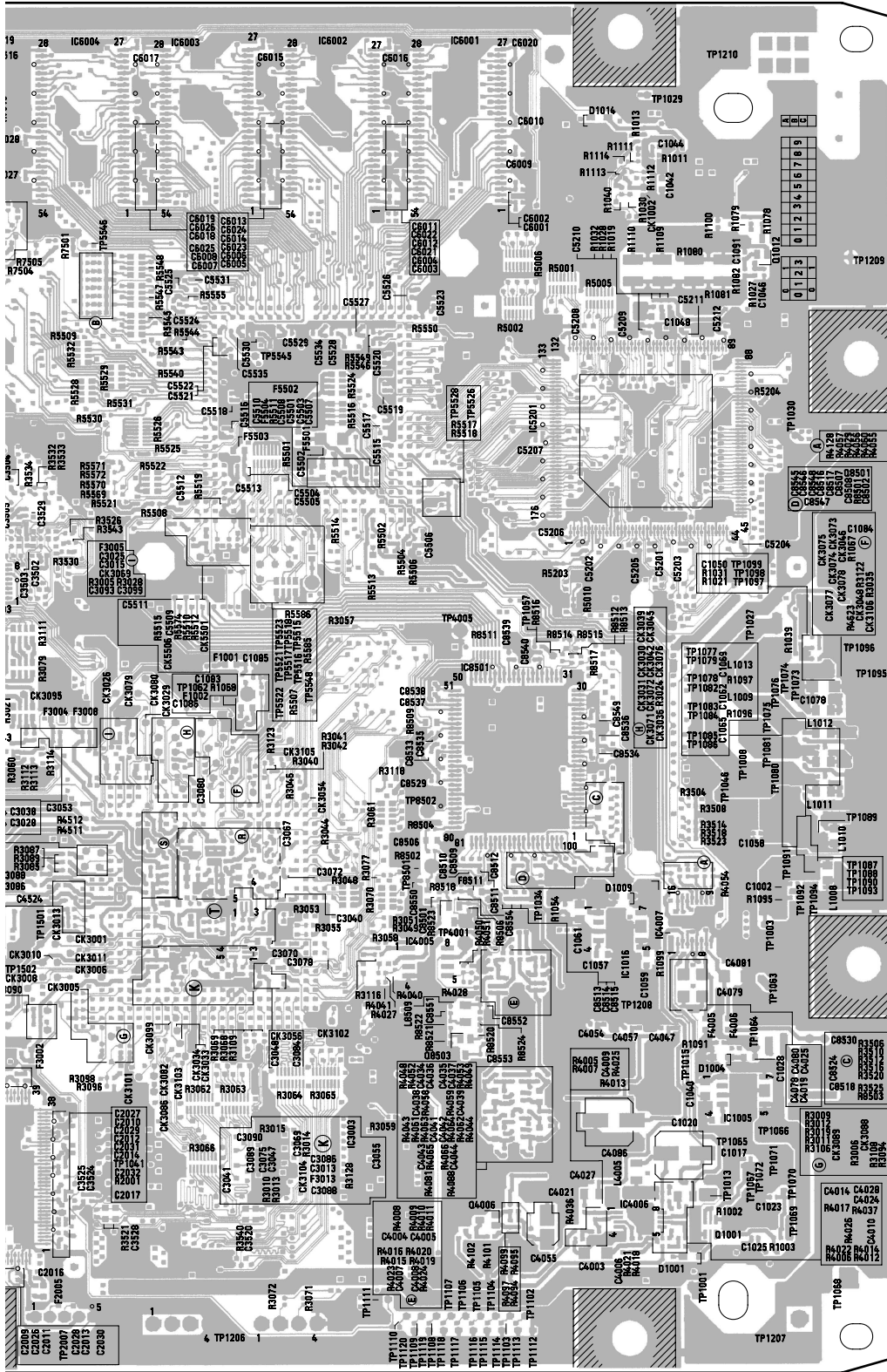
Q4006

IC4006

Q1001

IC2002





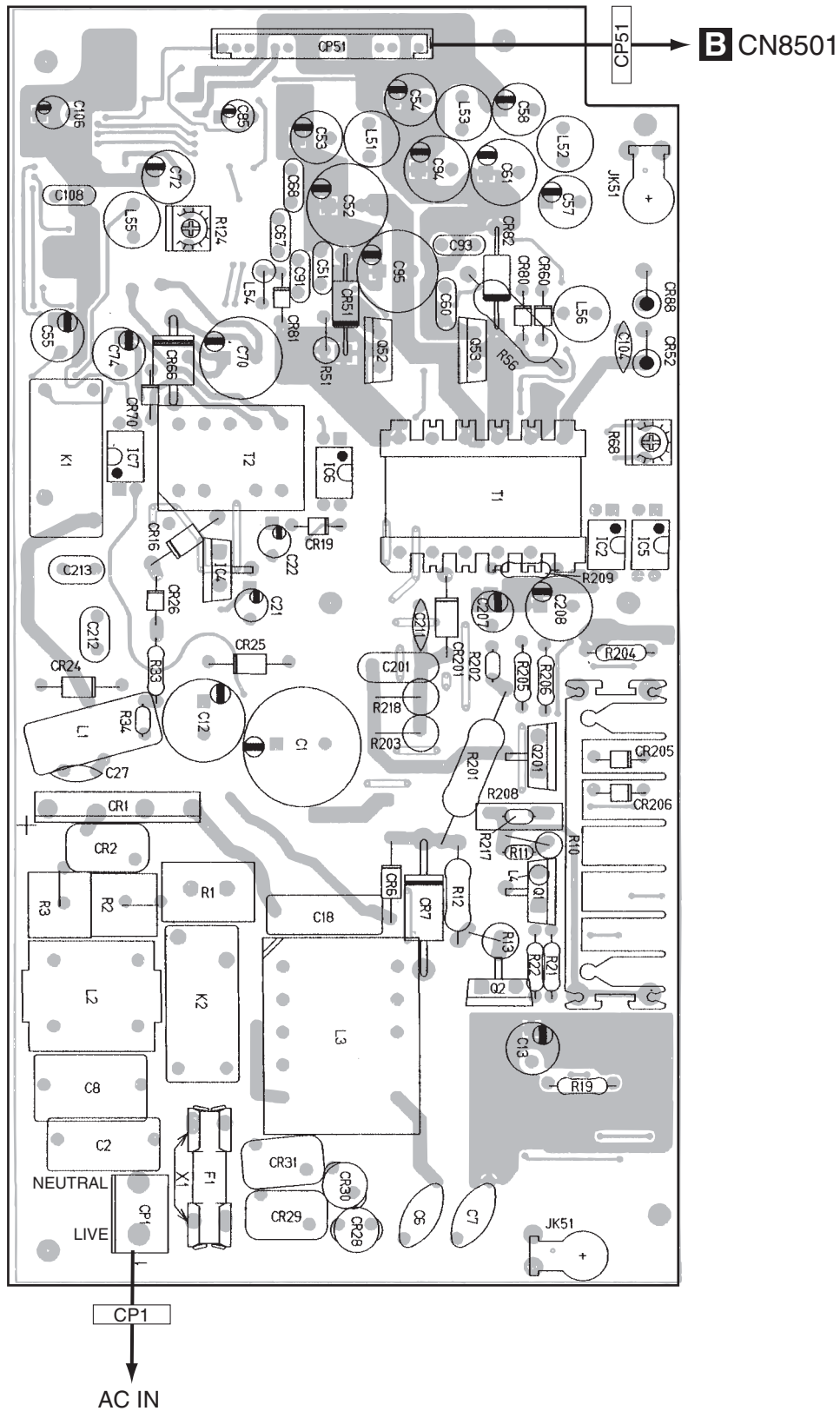
(ANP2086-B)

4.6 POWER SUPPLY UNIT

SIDE A

K POWER SUPPLY UNIT

SIDE A



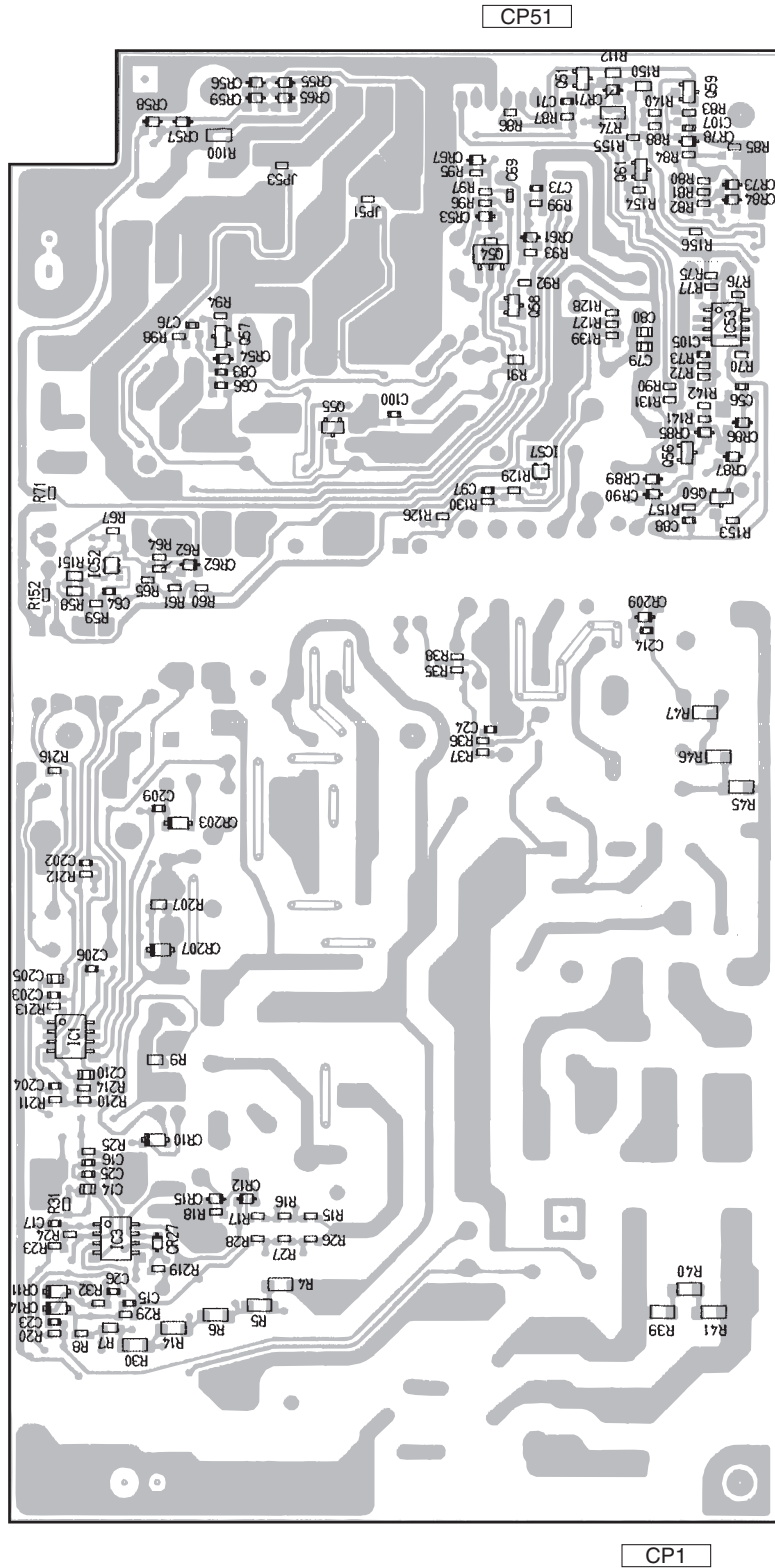
K

K

SIDE B

K POWER SUPPLY UNIT

SIDE B



Q51
Q59

Q61

Q54

Q58
IC53
Q57

Q55
IC57
Q56
Q60

IC52

IC1

IC3

K

PDP-R05U

K

1 2 3 4

5. PCB PARTS LIST

NOTES: ●Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
●The ⚠ mark found on some component parts indicates the importance of the safety factor of the part.
Therefore, when replacing, be sure to use parts of identical designation.
●When ordering resistors, first convert resistance values into code form as shown in the following examples.
Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).
560 Ω → 56 x 10¹ → 561 RD1/4PU 5 6 1 J
47k Ω → 47 x 10³ → 473 RD1/4PU 4 7 3 J
0.5 Ω → R50 RN2H R 5 0 K
1 Ω → 1R0 RS1P 1 R 0 K
Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).
5.62k Ω → 562 x 10¹ → 5621 RN1/4PC 5 6 2 1 F

● LIST OF ASSEMBLIES

Mark	Symbol and Description	PDP-R05U/ KUC	PRO-R05U/ KUC
NSP	1..MR AV BOARD ASSY 2..AV BOARD ASSY 2..MDR ASSY 2..SR ASSY 2..SW ASSY	AWV2162 AWZ6978 AWZ6922 AWZ6923 AWZ6977	AWV2163 AWZ6979 AWZ6922 AWZ6923 AWZ6977
NSP	1..MR FUKUGOU BOARD ASSY 2..FRONT ASSY 2..LED ASSY	AWV2126 AWZ6924 AWZ6925	AWV2129 AWZ6928 AWZ6925
NSP	1..MR MAIN BOARD ASSY 2..MAIN BOARD ASSY	AWV2127 AWZ6926	AWV2127 AWZ6926
	1..TUNER BOARD ASSY	AWE1300	AWE1300
⚠	1..POWER SUPPLY UNIT	AXY1091	AXY1091

● CONTRAST OF PCB ASSEMBLIES

B AV BOARD ASSY

AWZ6978 and AWZ6979 are constructed the same except for the following:

Mark	Symbol and Description	AWZ6978	AWZ6979
	R8652	RS1/16S102J	Not used
	R8659	RS1/16S0R0J	Not used
	R8660	Not used	RS1/16S0R0J
	JA7701 6P PIN JACK	AKB1297	AKB1298
	JA7702 4P PIN JACK	AKB1313	AKB1302
	JA7703 PINJACK+MINI DIN 4P	AKB1314	AKB1309
	JA7704 6P PIN JACK	AKB1295	AKB1312
	JA7705 2P 4 PIN MINI DIN (S)	AKP1234	AKP1235

G FRONT ASSY

AWZ6924 and AWZ6928 are constructed the same except for the following:

Mark	Symbol and Description	AWZ6924	AWZ6928
	R9658	RS1/16S0R0J	Not used
	R9659	Not used	RS1/16S0R0J
	JA9501 4P PIN JACK	AKB1303	AKB1304
	JA9502 4P MINI DIN (S)	AKP1238	AKP1239
	JA9504 3P PIN JACK	AKB1305	AKB1306

• PCB PARTS LIST (PDP-R05U)

Mark No. **Description** **Part No.**

A MR MAIN BOARD ASSY

[GCR BLOCK]

RESISTORS

R6011-R6016,R6021,R6041,R6043 RS1/16S0R0J
R6045 RS1/16S0R0J

[MICHEL MAIN BLOCK]

SEMICONDUCTORS

IC6107 PD0278A
IC6101 TC7W126FU
Q6108 2SA1586
Q6101,Q6102 HN1A01FU
Q6106,Q6107 HN1B04FU

COILS AND FILTERS

F6101,F6103,F6105-F6107 CCG1162
EMI FILTER
L6107 LCTAW220J2520
L6101-L6104 LCYC6R8K2125

CAPACITORS

C6102 (10/6.3) ACG7046
C6126,C6142,C6163,C6164 CCSRCH330J50
C6171,C6172 CCSRCH330J50
C6127,C6143 CCSRCH680J50
C6182,C6186 CEHVKW101M6R3

C6188 CEHVKW470M6R3
C6151 CKSQYB225K10
C6112,C6114 CKSRYB102K50
C6119,C6136,C6153,C6154 CKSRYB104K16
C6168,C6169,C6177,C6185 CKSRYB104K16

C6101,C6155,C6175,C6190 CKSRYB105K6R3
C6103,C6104,C6107-C6111,C6113 CKSSYF104Z16
C6116,C6123-C6125,C6130-C6133 CKSSYF104Z16
C6140,C6141,C6146-C6148,C6150 CKSSYF104Z16
C6152,C6160-C6162,C6165-C6167 CKSSYF104Z16

C6170,C6176,C6178-C6181 CKSSYF104Z16

RESISTORS

R6101,R6104-R6106,R6120 RAB4CQ100J
R6124,R6125 RAB4CQ100J
R6136,R6137,R6142-R6145 RS1/16S0R0J
R6194-R6196 RS1/16S1000F
R6115,R6131 RS1/16S100J

R6197,R6207 RS1/16S103J
R6147 RS1/16S1301F
R6198,R6208 RS1/16S183J
R6113,R6129 RS1/16S221J
R6126,R6138 RS1/16S2701F

R6112,R6123,R6128,R6141,R6165 RS1/16S271J
R6175 RS1/16S271J
R6170,R6171,R6174,R6176 RS1/16S331J
R6169,R6172,R6189 RS1/16S471J
R6122,R6140 RS1/16S473J

R6167,R6168 RS1/16S8201F
Other Resistors RS1/16SS###J

OTHERS

X6101 CRYSTAL OSCILLATOR ASS1175
(27MHz)

Mark No. **Description** **Part No.**

SEMICONDUCTORS

IC6106 HY57V161610ETP-8
Q6104,Q6105,Q6109 2SA1586
Q6103 RN1303

COILS AND FILTERS

F6104 CCG1162

CAPACITORS

C6266,C6267 CCSRCH470J50
C6184 CEHVKW101M6R3
C6149,C6156-C6159,C6173,C6174 CKSSYF104Z16
C6183,C6187,C6189 CKSSYF104Z16

RESISTORS

R6132-R6134 RAB4CQ103J
R6146,R6159,R6163,R6166,R6178 RAB4CQ330J
R6180,R6184 RAB4CQ330J
Other Resistors RS1/16SS###J

[MICHEL SUB BLOCK]

SEMICONDUCTORS

IC6255 PD0278A
Q6258 2SA1586
Q6251,Q6252 HN1A01FU
Q6256,Q6257 HN1B04FU

COILS AND FILTERS

F6251-F6254 EMI FILTER CCG1162
L6257 LCTAW220J2520
L6251-L6254 LCYC6R8K2125

CAPACITORS

C6272,C6288,C6305,C6306 CCSRCH330J50
C6312,C6313 CCSRCH330J50
C6273,C6289 CCSRCH680J50
C6251,C6321 CEHVKW101M6R3
C6327 CEHVKW470M6R3

C6297 CKSQYB225K10
C6258,C6260 CKSRYB102K50
C6265,C6282,C6299,C6300 CKSRYB104K16
C6309,C6310,C6316,C6324 CKSRYB104K16
C6264,C6295,C6301,C6314 CKSRYB105K6R3

C6253-C6257,C6259,C6262 CKSSYF104Z16
C6269-C6271,C6276-C6279 CKSSYF104Z16
C6286,C6287,C6292-C6294,C6296 CKSSYF104Z16
C6298,C6302-C6304,C6307,C6308 CKSSYF104Z16
C6311,C6315,C6317-C6320,C6331 CKSSYF104Z16

RESISTORS

R6251-R6254,R6271,R6275,R6276 RAB4CQ100J
R6329-R6331 RAB4CQ103J
R6256-R6261 RS1/16S0R0J
R6321-R6323 RS1/16S1000F
R6266,R6283 RS1/16S100J

R6326,R6336 RS1/16S103J
R6291 RS1/16S1301F
R6327,R6337 RS1/16S183J
R6264,R6281 RS1/16S221J
R6277,R6288 RS1/16S2701F

R6263,R6274,R6280,R6290,R6305 RS1/16S271J
R6314 RS1/16S271J
R6309,R6310,R6313,R6315 RS1/16S331J

Mark No. DescriptionR6308,R6311,R6335
R6273,R6289**Part No.**RS1/16S471J
RS1/16S473J**Mark No. Description****Part No.****[AD SUB BLOCK]
SEMICONDUCTORS**IC6602
IC6604
IC6601
IC6603,IC6607
Q6605AD80058
BA7078AF
SM5301BS
TC74VHC126FT
HN1B04FU**[AD MAIN BLOCK]
SEMICONDUCTORS**IC6402
IC6404
IC6401
IC6405,IC6408
Q6405AD80058
BA7078AF
SM5301BS
TC74VHC126FT
HN1B04FU

Q6601

RN1303

COILS AND FILTERS

F6601-F6604 EMI FILTER

CCG1162

CAPACITORSC6622,C6640 (10/6.3)
C6644
C6638
C6604,C6624
C6608,C6611,C6612,C6621,C6631ACG7046
CCSRCH151J50
CKSRYB103K50
CKSRYB104K16
CKSRYB105K6R3**CAPACITORS**C6422,C6441 (10/6.3)
C6445
C6438
C6404,C6424
C6408,C6411,C6412,C6421,C6431ACG7046
CCSRCH151J50
CKSRYB103K50
CKSRYB104K16
CKSRYB105K6R3C6633,C6634
C6609,C6614,C6623
C6642
C6641
C6602CKSRYB105K6R3
CKSRYB473K16
CKSRYB474K10
CKSRYB562K50
CKSRYB822K50C6434,C6435
C6409,C6414,C6423
C6443
C6442
C6402CKSRYB105K6R3
CKSRYB473K16
CKSRYB474K10
CKSRYB562K50
CKSRYB822K50C6601
C6603,C6605-C6607,C6610,C6613
C6615-C6620,C6625-C6629,C6639
C6643,C6645,C6647CKSRYB823K16
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16C6401
C6403,C6405-C6407,C6410,C6413
C6415-C6420,C6425-C6429
C6439,C6440,C6444,C6448CKSRYB823K16
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16**RESISTORS**R6681,R6685
R6608,R6613,R6621,R6627
R6643,R6644
R6628,R6636-R6641
R6607,R6611,R6612,R6619,R6620RAB4CQ101J
RAB4CQ330J
RAB4CQ330J
RS1/16S0R0J
RS1/16S1000F**RESISTORS**R6482,R6489
R6405,R6410,R6418,R6424
R6438,R6439
R6420,R6431-R6436
R6404,R6408,R6409,R6416,R6417RAB4CQ101J
RAB4CQ330J
RAB4CQ330J
RS1/16S0R0J
RS1/16S1000FR6626
R6609
R6625
R6679
R6673RS1/16S1000F
RS1/16S104J
RS1/16S1101F
RS1/16S153J
RS1/16S221JR6423
R6406
R6422
R6478
R6472RS1/16S1000F
RS1/16S104J
RS1/16S1101F
RS1/16S153J
RS1/16S221JR6680
R6617
R6601
R6610
R6666RS1/16S222J
RS1/16S224J
RS1/16S2701F
RS1/16S472J
RS1/16S682JR6479
R6414
R6401
R6413
R6465RS1/16S222J
RS1/16S224J
RS1/16S2701F
RS1/16S472J
RS1/16S682J

Other Resistors

RS1/16SS###J

Other Resistors

RS1/16SS###J

**[HDMI RX BLOCK]
SEMICONDUCTORS**IC6880
IC6803
IC6881
IC6806
Q6888,Q6889BR24L02FJ-W
PCM1742KE
SI9993CTG100
TC74HC4538AFT
2SA1586Q6885,Q6886
Q6884,Q6887
Q6881
Q6882
Q68802SC4116
RN1303
RN1902
RN2303
SM6K2D6880,D6881
D68081SS302
1SS355**SEMICONDUCTORS**

IC6406

MM1389XFBE

CAPACITORSC6450-C6455
C6437CKSRYB105K6R3
CKSSYF104Z16**RESISTORS**

All Resistors

RS1/16SS###J

5	6	7	8	
Mark No.	Description	Part No.	Mark No.	Description
D6806,D6807,D6884 D6883	DAN202U UDZS6R8(B)	C6811,C6812,C6815,C6816,C6819 C6821,C6822,C6825,C6828,C6829 C6833,C6835,C6840,C6842,C6843 C6852	CKSSYF104Z16 CKSSYF104Z16 CKSSYF104Z16 CKSSYF104Z16	A
COILS AND FILTERS		RESISTORS		
F6881	EMI FILTER	CCG1162	R6825,R6849 R6848 R6803,R6805,R6812,R6814,R6821 R6824 R6817 R6847 R6860 Other Resistors	RAB4CQ101J RAB4CQ220J RAB4CQ470J RAB4CQ470J RS1/16S3900F RS1/16S3901F RS1/16S473J RS1/16SS###J
CAPACITORS		OTHERS		
C6802,C6849,C6851 (10/6.3) C6880,C6882,C6884,C6886 C6888,C6889,C6892,C6895,C6896 C6899-C6902,C6905,C6906,C6915 C6917 C6927,C6928 C6921,C6922 C6911 C6913 C6920 C6831,C6848,C6856,C6857,C6881 C6883,C6885,C6887,C6890,C6891 C6893,C6894,C6897,C6898 C6903,C6904,C6907-C6910,C6912 C6916,C6923-C6926 C6854,C6855 (10uF/16V)	ACG7046 CCSRCH101J50 CCSRCH101J50 CCSRCH101J50 CCSRCH101J50 CCSRCH221J50 CEHVKW101M6R3 CEHVKW220M6R3 CKSRYB104K16 CKSRYB473K16 CKSSYF104Z16 CKSSYF104Z16 CKSSYF104Z16 CKSSYF104Z16 CKSSYF104Z16 DCH1165 RAB4CQ101J RAB4CQ101J RS1/16S0R0J RS1/16S104J RS1/16S222J RS1/16S3900F RS1/16S3901F RS1/16S473J RS1/16SS###J	JA6801	HDMI CONNECTOR	AKP1232
RESISTORS		CAPACITORS		
R6881-R6883,R6885,R6892,R6896 R6901,R6904 R6859 R6939,R6940 R6832,R6833 R6889 R6915 R6872 Other Resistors		C6853	CCSRCH470J50	
OTHERS		[ROZ BLOCK] SEMICONDUCTORS		
JA6881	HDMI CONNECTOR	AKP1232	IC6951 Q6951	PD6435A RN1303
SEMICONDUCTORS		CAPACITORS		
IC6804 IC6801 IC6802 Q6801 Q6802 D6801,D6802 D6804 D6803	BR24L02FJ-W SI9993CTG100 TC74VHC157FT RN1902 SM6K2 1SS302 DAN202U UDZS6R8(B)	C6959,C6960 C6951 C6952-C6954,C6956-C6958 C6961,C6962,C6964-C6968	CCSRCH150J50 CEHVKW101M6R3 CKSSYF104Z16 CKSSYF104Z16	
COILS AND FILTERS		RESISTORS		
F6801	EMI FILTER	CCG1162	R6951-R6953,R6956-R6962,R6966 R6968,R6972 R6945,R6946,R6988 Other Resistors	RAB4CQ100J RAB4CQ100J RAB4CQ103J RS1/16SS###J
CAPACITORS		OTHERS		
C6845,C6847,C6850 (10/6.3) C6801,C6806,C6808,C6810 C6813,C6814,C6817,C6818,C6820 C6823,C6824,C6830,C6834,C6836 C6839,C6841,C6844 C6832 C6805 C6826 C6846 C6803,C6804,C6807,C6809	ACG7046 CCSRCH101J50 CCSRCH101J50 CCSRCH101J50 CCSRCH101J50 CEHVKW101M6R3 CEHVKW220M6R3 CKSRYB104K16 CKSRYB473K16 CKSSYF104Z16	X6951	CERAMIC RESONATOR	ASS1169
COILS AND FILTERS		RESISTORS		
F6801	EMI FILTER	CCG1162	R6982-R6986,R6992 Other Resistors	RAB4CQ101J RS1/16SS###J
CAPACITORS		OTHERS		
C6845,C6847,C6850 (10/6.3) C6801,C6806,C6808,C6810 C6813,C6814,C6817,C6818,C6820 C6823,C6824,C6830,C6834,C6836 C6839,C6841,C6844 C6832 C6805 C6826 C6846 C6803,C6804,C6807,C6809	ACG7046 CCSRCH101J50 CCSRCH101J50 CCSRCH101J50 CCSRCH101J50 CEHVKW101M6R3 CEHVKW220M6R3 CKSRYB104K16 CKSRYB473K16 CKSSYF104Z16	CN6951	50P CONNECTER	AKM1201
COILS AND FILTERS		[CELIA BLOCK] SEMICONDUCTORS		
F6801	EMI FILTER	CCG1162	IC7001,IC7002 IC7004 IC7003	HY57V643220CT-7 PE5362A TC74LCX125FT
CAPACITORS		COILS AND FILTERS		
C6845,C6847,C6850 (10/6.3) C6801,C6806,C6808,C6810 C6813,C6814,C6817,C6818,C6820 C6823,C6824,C6830,C6834,C6836 C6839,C6841,C6844 C6832 C6805 C6826 C6846 C6803,C6804,C6807,C6809	ACG7046 CCSRCH101J50 CCSRCH101J50 CCSRCH101J50 CCSRCH101J50 CEHVKW101M6R3 CEHVKW220M6R3 CKSRYB104K16 CKSRYB473K16 CKSSYF104Z16	F7001,F7002	EMI FILTER	CCG1162
COILS AND FILTERS		CAPACITORS		
F6801	EMI FILTER	CCG1162	C7031 (10/6.3) C7029,C7041 (330uF/6.3V) C7064 C7025,C7066,C7067 C7001-C7024,C7026-C7028 C7032-C7040,C7042-C7063	ACH1365 CCSRCH100D50 CCSRCH221J50 CKSSYF104Z16 CKSSYF104Z16

Mark No. Description

Part No.

RESISTORS

R7013-R7018,R7030
R7007
Other Resistors

RAB4CQ220J
RS1/16S220J
RS1/16SS###J

OTHERS

X7001 CRYSTAL OSCILLATOR
(85MHz)

ASS1174

[MIKE BLOCK]

SEMICONDUCTORS

IC7152
IC7101

MBM29PL3200BE70PFV
PD5855A

COILS AND FILTERS

F7101,F7102 EMI FILTER

CCG1162

CAPACITORS

C7103,C7120 (330uF/6.3V)ACH1365
C7101,C7102,C7104-C7119
C7121-C7135,C7152,C7158-C7162

CKSSYF104Z16
CKSSYF104Z16

RESISTORS

R7113,R7115,R7116,R7119,R7121
R7123,R7124
R7102,R7105-R7108,R7110,R7111
Other Resistors

RAB4CQ101J
RAB4CQ101J
RAB4CQ330J
RS1/16SS###J

[MAIN UCOM BLOCK]

SEMICONDUCTORS

IC7205
IC7207
IC7201
IC7209
IC7211

BR24L64F-W
MB91F355APMTGE1
MM1522XU
NJM12904V
PQ20WZ11

IC7210
IC7203,IC7206
IC7202
Q7203
Q7201

PST3612UR
PST3628UR
TC74VHC125FT
2SA1586
2SJ461A

Q7202
Q7206,Q7207
D7201,D7202
D7203
D7204

HN1C01FU
RN1902
1SS355
SML-311UT
UDZS2R7(B)

CAPACITORS

C7244
C7231
C7243,C7245
C7241,C7242,C7248,C7249
C7213,C7218

CCSRCH100D50
CCSRCH102J50
CCSRCH221J50
CCSRCH470J50
CCSRCH7R0D50

C7205
C7201,C7217,C7236,C7239,C7252
C7226,C7237
C7216
C7209-C7212,C7214,C7215,C7219

CEHVKW101M6R3
CKSRYB103K50
CKSRYB104K16
CKSRYB472K50
CKSSYF104Z16

C7221-C7225,C7227-C7229
C7232-C7234,C7238,C7240
C7246,C7247,C7253 (10uF/16V)

CKSSYF104Z16
CKSSYF104Z16
DCH1165

RESISTORS

R7221,R7229,R7241,R7248-R7250

RAB4CQ101J

Mark No. Description

Part No.

R7201
R7244,R7245,R7275,R7286,R7287
R7290,R7295-R7306
R7269

RAB4CQ472J
RS1/16S0R0J
RS1/16S0R0J
RS1/16S101J

R7278
R7215
R7279
R7227,R7260
R7224

RS1/16S2201F
RS1/16S223J
RS1/16S4700F
RS1/16S473J
RS1/16S682J

R7280
R7277
Other Resistors

RS1/16S7500F
RS1/16S8201F
RS1/16SS###J

OTHERS

CN7203 3P CONNECTOR
CN7201 PLUG 8-P
CN7202 3P PH CONNECTOR
X7201 CERAMIC RESONATOR

AKM1213
AKM1225
AKM1274
ASS1170

SEMICONDUCTORS

IC7204

TC74VHC125FT

CAPACITORS

C7202,C7203,C7258,C7259
C7220

CCSRCH470J50
CKSSYF104Z16

RESISTORS

All Resistors

RS1/16SS###J

OTHERS

CN7204 3P PH CONNECTOR

AKM1274

[MR IF BLOCK] [REGULATORBLOCK]

SEMICONDUCTORS

IC7453
IC7454
IC7456
IC7401
IC7404

BA33BC0WFP
BA50BC0WFP
NCP1117DT15
SII170BCLG64
TC74VCX08FT

IC7403
IC7451
Q7406
Q7405
Q7403,Q7407,Q7408

TC74VCX574FT
TC74VHC08FT
2SA1586
HN1C01FU
RN1303

Q7451
Q7401
Q7402,Q7404,Q7409
D7401-D7407,D7457-D7459

RN1901
RN1902
RN2303
1SS355

COILS AND FILTERS

F7405-F7408 EMI FILTER
L7401 (3.3uH)
F7401-F7404 EMI FILTER

ATF1209
ATH1162
CCG1162

CAPACITORS

C7416,C7421,C7424,C7484 (10/6.3)
C7474 (330uF/6.3V)
C7401,C7402
C7475,C7477-C7482
C7403,C7404,C7406,C7407

ACG7046
ACH1365
CCSRCH100D50
CCSRCH221J50
CCSRCH820J50

C7410,C7411,C7413,C7414,C7419
C7456,C7460,C7465
C7405,C7412,C7415,C7417,C7418

CCSRCH820J50
CEHVKW101M6R3
CKSSYF104Z16

5		6		7		8	
Mark No.	Description	Part No.		Mark No.	Description	Part No.	
C7420,C7423,C7451,C7452		CKSSYF104Z16		C7531,C7537		CKSRYB105K10	
C7454,C7455,C7458,C7459,C7466		CKSSYF104Z16		C7552		CKSRYB123K50	
C7469,C7473,C7476		CKSSYF104Z16		C7532		CKSRYB272K50	A
C7453,C7457 (10uF/16V)		DCH1165		C7523,C7554		CKSRYB332K50	
				C7526		CKSRYB473K16	
RESISTORS							
R7425,R7449,R7451,R7452,R7454		RAB4CQ101J		C7538		CKSRYB562K50	
R7481,R7497-R7499		RAB4CQ101J		C7510,C7519,C7539,C7549		CKSRYF104Z50	
R7453		RAB4CQ103J		C7534,C7551,C7557,C7558		DCH1165	
R7440,R7441,R7443		RS1/16S0R0J		(10uF/16V)			
R7417,R7418,R7429,R7431		RS1/16S111J		RESISTORS			
				R7502		ACN1199	
R7428,R7430		RS1/16S272J		R7545,R7546		RS1/16S1002F	
R7410		RS1/16S5100F		R7559		RS1/16S6802F	B
R7456		RS1LMF1R5J		VR7505 (470)		CCP1388	
R7455		RS2LMF4R7J		VR7503 (4.7K)		CCP1394	
Other Resistors		RS1/16SS###J					
OTHERS							
CN7454,CN7455 50P CONNECTER		AKM1201		VR7502,VR7504,VR7506 (10k)		CCP1396	
CN7453 PLUG 15-P		AKM1232		Other Resistors		RS1/16S###J	
CN7402 16P FFC CONNECTOR		AKM1234		OTHERS			
CN7451 PH 15P CONNECTOR		AKM1301		U7501 TV FRONTEND SYSTEM UNIT		AXF1130	
CN7401 DVI SOCKET (24P)		AKP1250		U7502 TV FRONTEND		AXF1132	
SEMICONDUCTORS							
IC7452		TC74VHC126FT		[AV IO BLOCK]			
				SEMICONDUCTORS			
				IC7801		SP3232ECY	C
				IC7803		TC74VHC00FT	
				IC7802		TC74VHC125FT	
				Q7705,Q7706,Q7716,Q7801,Q7804		2SA1586	
				Q7807		2SA1586	
				Q7708,Q7709,Q7711,Q7713-Q7715		2SC4116	
				Q7805		2SC4116	
				Q7702,Q7703		2SC5233	
				Q7701,Q7718		DTA124EUA	
				Q7704,Q7802,Q7803,Q7806,Q7808		DTC124EUA	
				Q7707,Q7710,Q7712		HN1A01FU	D
				D7701		1SS301	
				D7702-D7707,D7710-D7712		1SS302	
				D7708,D7807-D7810		1SS355	
				D7713-D7718		UDZS9R1(B)	
				CAPACITORS			
				C7718,C7725,C7747		ACH1419	
				C7806,C7809		CEHVKW100M16	
				C7702,C7707,C7711,C7739,C7741		CKSRYB103K50	
				C7744-C7746		CKSRYB103K50	
				C7701,C7703-C7705,C7709		CKSRYB105K10	
				C7715-C7717,C7723,C7724,C7730		CKSRYB105K10	E
				C7732,C7740,C7752-C7754		CKSRYB105K10	
				C7706,C7743		CKSRYB473K16	
				C7713,C7721,C7726,C7801-C7805		CKSRYF104Z50	
				C7807,C7808		CKSRYF104Z50	
				C7708,C7710,C7712,C7714		DCH1165	
				C7719,C7720,C7727,C7731,C7733		DCH1165	
				C7737,C7738,C7742,C7749-C7751		DCH1165	
				(10uF/16V)			
				RESISTORS			
				R7711,R7719,R7735,R7736		RS1/10S151J	F
				R7744,R7745		RS1/10S151J	
				R7813		RS1/10S680J	
				R7703,R7704,R7727,R7757,R7758		RS1/16S75R0F	
				R7761-R7763,R7766,R7769-R7771		RS1/16S75R0F	

Mark No. Description**Part No.**

Other Resistors

RS1/16S###J

OTHERS

JA7704 6P PIN JACK
 JA7701 6P PIN JACK
 JA7702 4P PIN JACK
 JA7703 PINJACK+MINI DIN 4P
 CN7801 12P FFC CONNECTOR

AKB1295
 AKB1297
 AKB1313
 AKB1314
 AKM1233

JA7705 2P 4PIN MINIDIN(S)
 JA7801 9P D-SUB SOCKET

AKP1234
 AKP1240

[AV SW BLOCK]**SEMICONDUCTORS**

IC8005
 IC8002
 IC8004
 IC8003
 IC8001

AN15852A
 CXA2069Q
 NJM12904V
 TC4052BFT
 TC7WH123FU

Q8005,Q8006,Q8013,Q8014
 Q8001,Q8002,Q8007-Q8010,Q8012
 Q8016,Q8019,Q8020
 Q8015
 Q8003,Q8018

2SA1586
 2SC4116
 2SC4116
 2SK209
 DTA124EUA

Q8004,Q8017
 Q8011
 D8002
 D8001,D8015,D8016

DTC124EUA
 HN1C01FU
 1SS301
 1SS355

CAPACITORS

C8051 (10/6.3)
 C8012,C8056 (100uF/16V)
 C8022,C8027
 C8019,C8038
 C8040,C8041

ACG7046
 ACH1394
 CCSRCH181J50
 CCSRCH681J50
 CEHVKW100M16

C8002-C8004,C8008,C8009,C8016
 C8050
 C8001,C8005-C8007,C8010,C8013
 C8015,C8025,C8026,C8031-C8036
 C8039,C8042-C8044,C8048,C8049

CKSRYB105K10
 CKSRYB105K10
 CKSRYF104Z50
 CKSRYF104Z50
 CKSRYF104Z50

C8052,C8053,C8055,C8059
 C8011,C8014,C8017,C8018
 C8023,C8024,C8028,C8037
 C8045,C8046,C8061 (10uF/16V)

CKSRYF104Z50
 DCH1165
 DCH1165
 DCH1165

RESISTORS

All Resistors

RS1/16S###J

[AV REG BLOCK]**SEMICONDUCTORS**

IC8505
 IC8504
 IC8506
 IC8503
 IC8502

BA50BC0WFP
 BA90BC0WFP
 BD6522F
 M5291FP
 NCP1117ST33

Q8501,Q8502,Q8504
 Q8503
 Q8511
 D8503,D8505,D8508,D8512
 D8509

2SC4116
 DTA124EUA
 TPC6104
 1SS355
 D1FL20U(S)

D8502

UDZS30(B)

Mark No.**Description****Part No.**

D8501

UDZS5R6(B)

COILS AND FILTERS

L8502 INDUCTOR
 F8502-F8506 EMI FILTER

ATH1182
 CCG1162

CAPACITORS

C8508,C8521,C8523,C8529,C8531
 C8533 (10/6.3)
 C8505,C8512 (100uF/16V)
 C8520 (47uF/50V)
 C8519

ACG7046
 ACG7046
 ACH1394
 ACH1403
 CCSRCH221J50

C8514
 C8500,C8540,C8542
 C8503,C8526,C8554
 C8501
 C8507,C8527

CCSRCH821J50
 CEHAZL471M16
 CEHVKW100M16
 CEHVKW100M35
 CEHVKW100M50

C8517
 C8506,C8510,C8515,C8522,C8552
 C8502,C8504,C8511,C8513,C8516
 C8518,C8524,C8525,C8551,C8553
 C8509,C8541,C8543 (10uF/16V)

CEHVKW101M6R3
 CEHVKW220M16
 CKSRYB103K50
 CKSRYB103K50
 DCH1165

RESISTORS

R8511
 R8506,R8507,R8513,R8514
 R8543,R8544,R8547,R8548
 R8502,R8531
 R8503

ACN1164
 ACN1188
 ACN1188
 ACN1199
 RD1/2LMF100J

R8501
 R8512
 R8523
 R8508
 R8536

RD1/2LMF391J
 RS1/16S1101F
 RS1/16S3302F
 RS1LMF8R2J
 RS1LMFR56J

R8524
 Other Resistors

RS2LMF3R3J
 RS1/16S###J

OTHERS

CN8504 PLUG(15P)
 U8502, U8503 DD CON UNIT
 U8504 DD CON UNIT

KM200NA15
 AXY1088
 AXY1089

[BOARD IF BLOCK]**CAPACITORS**

C8651,C8652

CCSRCH181J50

RESISTORS

All Resistors

RS1/16S###J

OTHERS

CN8651-CN8653 50P CONNECTER
 CN8657 40P CONNECTER

AKM1201
 AKM1303

**[UIF UCOM BLOCK]
SEMICONDUCTORS**

IC8705
 IC8702
 IC8703
 IC8701
 IC8704

BR24L01AFJ-W
 HD64F3687FP
 PST9231N
 TC74VHC08FT
 TC7W126FU

Q8702

DTC124EUA

CAPACITORS

Mark No.	Description
C8706,C8707	
C8714,C8715	
C8716	
C8709	
C8701-C8705,C8708,C8711-C8713	

RESISTORS

R8719
R8702,R8704,R8720,R8745
Other Resistors

OTHERS

CN8701 PLUG 8-P
CN8702 3P PH CONNECTOR
X8702 CERAMIC RESONATOR
X8701 CERAMIC RESONATOR (32.768kHz)

[CCD BLOCK] SEMICONDUCTORS

IC8904
IC8903
IC8906
Q8902-Q8904,Q8923,Q8924

CAPACITORS

C8913,C8916 (2.2uF/16V)
C8912,C8915
C8920,C8921
C8904,C8907
C8944

C8910,C8919
C8911,C8914,C8931
C8930
C8935,C8936
C8945

C8929
C8901,C8903,C8906,C8909
C8917,C8918,C8925,C8937

RESISTORS

R8932
R8907-R8916,R8918,R8923,R8930
R8948,R8949,R8951
Other Resistors

OTHERS

X8901 CERAMIC RESONATOR (16MHz)

EMDR ASSY SEMICONDUCTORS

IC9301,IC9302
Q9301,Q9302
Q9303

CAPACITORS

C9304
C9301,C9305-C9308
C9302,C9303

RESISTORS

All Resistors

OTHERS

Part No.
CCSRCH120J50
CCSRCH470J50
CEHVKW101M6R3
CKSRYB472K50
CKSRYF104Z50

RAB4C101J
RAB4C103J
RS1/16S###J

AKM1225
AKM1274
ASS1168
ASS1172

FMS6410CS
PD5910A
PST3628UR
2SA1586

ACG1109
CCSRCH221J50
CCSRCH5R0C50
CCSRCH681J50
CCSRCK2R0C50

CEHVKW100M16
CKSRYB102K50
CKSRYB103K50
CKSRYB105K10
CKSRYB153K50

CKSRYB683K16
CKSRYF104Z50
CKSRYF104Z50

RAB4C101J
RAB4C473J
RAB4C473J
RS1/16S###J

ASS1159

TC74VHC08FT
2SC4116
DTA124EUA

CCSRCH101J50
CCSRCH471J50
CKSRYF104Z50

RS1/16S###J

Mark No.	Description
CN9301	SOCKET (20P)
CN9302	CONNECTOR

FSR ASSY OTHERS

JA9453 MINI JACK(4P)
CN9452 CONNECTOR
JA9451,JA9452 JACK
9453 SCREW TERMINAL

GFRONT ASSY SEMICONDUCTORS

IC9501
IC9502
Q9503-Q9508
Q9501,Q9502
D9503

D9506-D9508,D9514-D9516
D9501,D9502,D9504,D9505
D9509-D9511,D9517,D9518

CAPACITORS

C9517,C9518
C9520-C9522,C9526-C9528
C9505,C9506,C9531-C9533
C9504,C9514
C9507-C9512

C9503
C9516,C9519,C9537,C9629
C9513,C9515,C9523,C9534-C9536
C9538-C9540

RESISTORS

R9504,R9507,R9508,R9534-R9536
R9543-R9545
Other Resistors

OTHERS

JA9501 PIN JACK(3P)
JA9504 PIN JACK(3P)
CN9502 50P CONNECTER
JA9502 4P MINIDIN SOCKET(S)
JA9505 15P D-SUB SOCKET

JA9503 JACK

HLED ASSY SEMICONDUCTORS

Q9651
Q9653
Q9652
D9652
D9654

D9653
D9655

CAPACITORS

C9651

RESISTORS

All Resistors

Part No.
AKP1226
CKS3830

AKN1073
CKS3826
RKN1004
VNE1949

BR24C21FJ
TC74VHC08FT
2SC4116
DTC124EUA
1SS301

1SS302
UDZS5R6(B)
UDZS9R1(B)

CCSRCH220J50
CEHVKW470M6R3
CKSRYB103K50
CKSRYB104K16
CKSRYB105K10

CKSRYB473K16
CKSRYF104Z16
DCH1165
DCH1165

RS1/16S75R0F
RS1/16S75R0F
RS1/16S###J

AKB1303
AKB1305
AKM1201
AKP1238
AKP1241

RKN1026

DTA124EUA
HN1C01FU
RN2902
SML-310DT
SML-310MT

SML-311UT
SML-521MDW

CKSRYB103K50

RS1/16S###J

Mark No. Description

Part No.

OTHERS

CN9651 7P PH CONNECTOR

AKM1293

TUNER BOARD ASSY

OTHERS

1 SCREW

ABZ30P060FTC

10 WIND REFLECTOR 2

AEC2011

⚠ 90 GASKET C

AEC2014

2 WIND REFLECTOR

AEC7521

⚠ 5 GASKET A

AEC7528

⚠ 6 GASKET B

AEC7529

1 CASE TOP

ANG2659

⚠ 4 PCMCIA EJECTOR

ANG2673

⚠ 8 GROUND PLATE A

ANG2698

⚠ 9 GROUND PLATE B

ANG2699

7 TOP COVER

ANG2706

3, 5 SCREW

BBZ30P080FTC

1 RIVET A

BEC1158

4 SCREW

PMZ20P080FTC

6 SCREW

VMZ30P060FTC

[I/O POWER BLOCK]

SEMICONDUCTORS

IC1012

24LC256T(I)SNG

IC1015

BA00BC0WFP

IC1021

CY2305SC-1H

IC1022

KA5SDKAS01TSN

IC1007,IC1016

MM1562FF

IC1006

MM1563DF

IC1004,IC1005,IC1023

MM1565AF

IC1008,IC1009

NJM2370U09

IC1010

PST3622NR

IC1013,IC1014

R1224N102H

IC1019

S-L2980A15MC-C6A

IC1011

TC7S08FU

Q1006,Q1012

2SA1576A

Q1008,Q1009

CPH5802

Q1005

DTC124EUA

Q1001,Q1010,Q1011,Q1013

RN1901

Q1003

UMD2N

D1001

1SS355

D1003-D1009,D1014,D1019

RB501V-40

COILS AND FILTERS

L1003,L1004

ATH1161

L1008,L1010 CHIP BEEDS FILTER

BTX1039

L1005-L1007,L1009,L1011-L1018

BTX1042

CHIP BEEDS FILTER

F1001,F1002 FERRITE CORE

VTF1084

CAPACITORS

C1049,C1051,C1090

BCG1054

C1078

BCG1059

C1048

CCSRCH102J50

C1019-C1022,C1057,C1089

CCSRCH471J50

C1008

CEHVKW100M50

C1001,C1010,C1054-C1056,C1060

CEHVKW101M6R3

C1064

CEHVKW101M6R3

C1009,C1014,C1015,C1034,C1035

CEHVKW470M16

C1053,C1070

CEHVKW470M16

Mark No. Description

Part No.

C1032,C1039-C1041,C1061,C1076

CKSQYB225K10

C1088

CKSQYB225K10

C1036

CKSRYB103K50

C1027-C1029,C1031,C1042,C1045

CKSRYF105Z10

C1059,C1075,C1087

CKSRYF105Z10

C1002,C1012,C1013,C1016,C1017

CKSSYB103K16

C1026,C1030,C1037,C1038

CKSSYB103K16

C1043,C1044,C1050,C1058,C1062

CKSSYB103K16

C1065,C1069,C1074,C1085,C1086

CKSSYB103K16

C1018,C1023-C1025,C1046,C1047

CKSSYF104Z16

C1052,C1084,C1091

CKSSYF104Z16

RESISTORS

R1073,R1074

RS1/10S271J

R1035

RS1/16SS1103F

R1039

RS1/16SS1202F

R1043

RS1/16SS1503F

R1019

RS1/16SS2202F

R1032

RS1/16SS5102F

R1021

RS1/16SS5602F

R1041

RS1/16SS9102F

R1069,R1070

RS1/16S470J

R1080,R1081,R1109

RS1/4S1R5J

R1015,R1042

RS1/4S3R3J

Other Resistors

RS1/16SS###J

OTHERS

CN1001 40P CONNECTER

AKM1217

CN1002 12P PH CONNECTOR

AKM1298

CN1003 14P PH CONNECTOR

AKM1300

X1001 CRYSTAL RESONATOR

BSS1123

(27.0000MHz)

[FRONT END BLOCK]

SEMICONDUCTORS

IC1502

BA10358F

IC2002

BCM3510KPFG

IC1501

TC7W66FU

IC1503

UPC1663GV

IC4503

UPC3220GR

Q1503-Q1505

2SC5084

Q1501

RN1901

D1501,D1502

1SS312

COILS AND FILTERS

F4502 SAW FILTER

ATF1215

F1501,F1502 SAW FILTER

BTF1079

L1504,L1505 CHIP COIL

BTH1121

L4564

LCTAW1R5J2520

L4565

LCYA10NJ2520

L4503

LCYA56NJ2520

L4502,L4505

LCYA68NJ2520

L4501,L4509

LCYA82NJ2520

L4507

LCYAR10J2520

L1501

LCYAR68J2520

F1504-F1507,F1510,F1511,F1514

VTF1084

F2001-F2004,F4504 FERRITE CORE

VTF1084

CAPACITORS

C1505,C1521

ACH1421

C1501,C1509,C2001,C2002,C2015

BCG1054

C2018,C2019,C2038,C2039

BCG1054

C4505

CCSRCH271J50

5	6	7	8	
Mark No.	Description	Part No.	Mark No.	Description
C4504		CCSSCH100D50	D5201	
C4501,C4513,C4534 C4511 C2033,C2040 C4502,C4503,C4509 C4515,C4517		CCSSCH101J50 CCSSCH120J50 CCSSCH220J50 CCSSCH270J50 CCSSCH390J50	COILS AND FILTERS	
C4507 C1516,C1531,C1536 C1508 C1510 C1507		CCSSCH560J50 CEHVKW100M16 CEHVKW100M50 CEHVKW101M25 CKSRYB103K50	F3014 CHIP FERRITE BEADS F3003,F3004,F3006-F3008 F3010-F3013,F3015,F5501-F5504 F5506,F5507 FERRITE CORE	ATF1212 VTF1084 VTF1084 VTF1084
C1503,C4518,C4524,C4528 C4532,C4533,C4535 C1502,C1504,C1506,C1511,C1512 C1514,C1517,C1519,C1522-C1526 C1528-C1530,C1534,C1537-C1548		CKSSYB102K50 CKSSYB102K50 CKSSYB103K16 CKSSYB103K16 CKSSYB103K16	CAPACITORS	
C1552,C2003-C2014,C2016,C2017 C2020-C2032,C2035-C2037,C4520 C4525,C4530,C4544,C4546,C4547 C4551-C4553 C1515,C1518,C1533		CKSSYB103K16 CKSSYB103K16 CKSSYB103K16 CKSSYB104K10 CKSSYB104K10	C3035,C3036,C5532 C5502 CERAMIC CAPACITOR C3105 C3095,C3096 C3103	BCG1054 BCG1059 CCSSCH220J50 CCSSCH5R0C50 CEHVKW100M16
C1513,C1535		CKSSYF104Z16	C5514 C3016 C3085,C3093 C3024,C3025,C3027,C3029 C3033,C3034,C3038,C3053,C3058	CEHVKW101M6R3 CKSRYF105Z10 CKSSYB102K50 CKSSYB103K16 CKSSYB103K16
RESISTORS			C3065,C3066,C3089,C3091 C5201-C5212,C5501,C5503-C5513 C5515-C5531,C5533-C5535 C3001,C3002,C3004-C3010 C3012-C3015,C3017,C3018	CKSSYB103K16 CKSSYB103K16 CKSSYB103K16 CKSSYB104K10 CKSSYB104K10
R1548 R1557 R2036 Other Resistors		RS1/16SS1001F RS1/16SS2201F RS1/16S0R0J RS1/16SS###J	C3020-C3023,C3026,C3028 C3031,C3032,C3040,C3041 C3043-C3045,C3047-C3049 C3051,C3052,C3054-C3057,C3059 C3061,C3064,C3067-C3070,C3072	CKSSYB104K10 CKSSYB104K10 CKSSYB104K10 CKSSYB104K10 CKSSYB104K10
OTHERS			C3074-C3076,C3078,C3080,C3081 C3084,C3086-C3088,C3090,C3092 C3100,C3101,C3106	CKSSYB104K10 CKSSYB104K10 CKSSYB104K10
X2001 CRYSTAL RESONATOR (26.800MHz)		ASS1186	RESISTORS	
⚠ M1501 TUNER MODULE		AXF1125	R3062-R3066 R5003,R5007,R5501,R5526 R3079 R3048 R3021,R5545,R5547,R5548	BCN1067 BCN1072 RAB4C102J RAB4C103J RAB4C330J
[POD BLOCK] SEMICONDUCTORS			R5507,R5522,R5524 R5528,R5529,R5532 R3036,R3037 R5513 R3117,R3118,R3121,R5017	RAB4C472J RAB4C560J RS1/16S1002F RS1/16S1371F RS1/16S220J
CAPACITORS			R5585 R3005,R3028 Other Resistors	RS1/16S3240F RS1/16S4021F RS1/16SS###J
C2510 C2502-C2509		CCSSCH680J50 CKSSYF104Z16	OTHERS	
RESISTORS			X3001 CRYSTAL RESONATOR (25.000MHz)	ASS1185
R2259,R2503,R2507,R2511-R2513 R2510,R2521,R2559 R2535,R2546,R2552,R2553 Other Resistors		BCN1067 RAB4C103J RAB4C470J RS1/16SS###J	[MEMORY BLOCK] SEMICONDUCTORS	
OTHERS			IC6001-IC6004 IC3501,IC3505 IC3503	IC42S16800-6TG K4H561638F-UCB3 PC28F128K3C115
CN2501 PCMCIA CONNECTOR		AKP1259	COILS AND FILTERS	
[SYSTEM IC BLOCK] SEMICONDUCTORS			F6001-F6004 CHIP FERRITE BEADS F6005-F6008 FERRITE CORE	ATF1212 VTF1084
IC5501 IC3001 IC5502 IC5201 IC3003,IC3004		BCM7021RKP1G-D0 BCM7115A3KPBG CY22381FSZC-147 PE5434A TC7SA08FU	CAPACITORS	

	1	2	3	4
	Mark No.	Part No.	Mark No.	Part No.
	C3509	CEHVKW101M6R3	R4052,R4053	RS1/16SS2402F
	C3502-C3508,C3510-C3515	CKSSYB103K16	R8509	RS1/16S220J
	C3518,C3519,C3521-C3523	CKSSYB103K16		
A	C3526,C3527,C3529,C6001-C6028	CKSSYB103K16	Other Resistors	RS1/16SS###J
	C3516,C3517,C3524,C3525	CKSSYB104K10		
	RESISTORS		OTHERS	
	R3531	RAB4C103J	X8501 CRYSTAL RESONATOR	ASS1184
	R6001,R6006	RAB4C330J	(42MHz)	
	R3521,R3540	RS1/16S1210F	JA4001 OPTICAL OUT MOD.	GP1FM513TZ
	Other Resistors	RS1/16SS###J		
	OTHERS		[DIGITAL VIDEO BLOCK]	
	CN3501 80P CONNECTOR RCPT	BKP1159	SEMICONDUCTORS	
			IC7501	PE5436A
			IC7503-IC7505	TC74LCX541FT
B	[AUDIO/VIDEO BLOCK]		COILS AND FILTERS	
	SEMICONDUCTORS		F7501-F7504 FERRITE CORE	VTF1084
	IC4007	AK5381VT		
	IC4005	CY24216SC-1		
	IC4001,IC4003,IC4006	NJM2068V	CAPACITORS	
	IC8501	TC90A92AFG	C7507	BCG1054
	Q4001-Q4003,Q8502	2SA1576A	C7501-C7506,C7508,C7510,C7511	CKSSYB104K10
	Q8501	2SC4081	RESISTORS	
			R7540,R7541	BCN1067
			R7518	RAB4C0R0J
			R7547-R7550	RS1/16S470J
			Other Resistors	RS1/16SS###J
	COILS AND FILTERS		OTHERS	
	L4004,L4005 CHIP COIL	BTH1107	CN7501 50P CONNECTER	AKM1236
	L8508	LCTAW1R5J2520		
C	F4004-F4007,F8501,F8504-F8507	VTF1084		
	F8509-F8511 FERRITE CORE	VTF1084		
	CAPACITORS		[IEEE1394 BLOCK]	
	C4003,C4018,C4078,C8503,C8519	BCG1054	SEMICONDUCTORS	
	C8521-C8523,C8542,C8544	BCG1054	IC8004	PST3622NR
	C4019,C4079,C4085	BCG1059	IC8003	TC74LCX125FT
	C8506	CCSRCH151J50	IC8005	TC7S08FU
	C4001,C4002	CCSRCH391J50	IC8006	TC7SA08FU
			IC8001	TSB43CA42ZGW
	C4038,C4039	CCSRCH471J50		
	C4036,C4037,C4070,C8550	CCSSCH101J50	Q8001	DTC124EUA
D	C8532	CCSSCH180J50		
	C8528	CCSSCH220J50		
	C4009,C4010	CCSSCH221J50	COILS AND FILTERS	
			L8001-L8004 CHOKE COIL	ATH1160
	C4004,C4005,C4007,C4008	CCSSCH390J50	F8001,F8002 EMI FILTER	DTL1106
	C8502	CCSSCH4R0C50	F8003 FERRITE CORE	VTF1084
	C4011,C4012	CEHVKW470M16		
	C4021,C4024	CKSQYB225K10		
	C8524	CKSRYB152K50	CAPACITORS	
			C8012,C8013	CCSSCH100D50
	C8501	CKSRYB474K10	C8026,C8027	CCSSCH221J50
	C4015,C8531	CKSSYB102K50	C8024,C8025	CKSRYB105K6R3
E	C4006,C4013,C4014,C4027,C4028	CKSSYB103K16	C8014,C8019	CKSRYF104Z16
	C4040,C4059,C4083,C4084	CKSSYB103K16	C8029-C8031	CKSSYB102K50
	C8507-C8511,C8513-C8516,C8518	CKSSYB103K16		
			C8033,C8034	CKSSYB103K16
	C8527,C8529,C8530,C8533-C8540	CKSSYB103K16	C8037	CKSSYB104K10
	C8549,C8554	CKSSYB103K16	C8001-C8011,C8015-C8018	CKSSYF104Z16
	C4025,C4029,C4073,C4080,C4081	CKSSYB104K10	C8020-C8023,C8032,C8036	CKSSYF104Z16
	C8512,C8517,C8520,C8545-C8548	CKSSYB104K10		
	C4067,C4068	CKSSYB821K50	RESISTORS	
			R8001,R8002,R8013	BCN1070
	C4047,C4053,C4054,C4057,C4061	CKSSYF104Z16	R8033,R8036,R8050,R8064	BCN1072
	C4082	CKSSYF104Z16	R8004	RAB4C0R0J
			R8030	RAB4C472J
F	RESISTORS		R8077,R8079	RS1/16SS5101F
	R8511	BCN1070		
	R4025,R4026	RS1/16SS1002F	R8065-R8068,R8073,R8074,R8076	RS1/16SS56R0D
	R4013,R4014,R4048,R4049	RS1/16SS2402F	R8078	RS1/16SS56R0D

Mark No.	Description	Part No.
R8051		RS1/16SS6341D
Other Resistors		RS1/16SS###J

OTHERS

CN8001,CN8002	1394 TERMINAL	AKP1268
X8001	CRYSTAL RESONATOR (24.576MHz)	VSS1192

J SW ASSY
SWITCHES AND RELAYS

S8701	POWER SWITCH	ASG1097
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OTHERS

CN8703	3P PH CONNECTOR	AKM1289
--------	-----------------	---------

K POWER SUPPLY UNIT

POWER SUPPLY UNIT has no service part.

- A
1.

At shipment, the unit is adjusted to its best conditions. Normally, it is not necessary to readjust even if an assembly is replaced. If the adjustment is shifted or if it becomes necessary to readjust because of part replacement, etc., perform the adjustment as described below.
2.

Any value changed in Service/Factory mode will be stored in memory as soon as it is changed. Before readjustment, take note of the original values for reference in case you need to restore the original settings.
3.

Use a stable AC power supply.

6.1 HOW TO ENTER SERVICE FACTORY MODE

■ Refer to the technical document (Service Know-How).

6.2 POSSIBLE CASES WHERE READJUSTMENT IS REQUIRED

■ When any of the following assemblies is replaced

C

POWER SUPPLY Unit	➡	No adjustment required
AV BOARD Assy	➡	No adjustment required
MR MAIN BOARD Assy	➡	No adjustment required
TUNER Board Assy	➡	No adjustment required However, HOST ID is changed. Please tell a customer about new HOST ID. Refer to the following note and instruction manual.
Other assemblies	➡	No adjustment required

■ When any part in the following assemblies is replaced

D

POWER SUPPLY Unit	➡	The assembly must be replaced as a unit, and no part replacement is allowed.
AV BOARD Assy	➡	If the front end (U7501, U7502) is replaced, adjustment is required.
MR MAIN BOARD Assy	➡	The assembly must be replaced as a unit, and no part replacement is allowed.
TUNER Board Assy	➡	The assembly must be replaced as a unit, and no part replacement is allowed.
Other assemblies	➡	No adjustment required

■ Adjustment items

- F
- ①

Audio Level Adjustment
- ②

Video Level Adjustment
- ③

Audio Level Adjustment
- ④

MSP Adjustment
- ⑤

MSP Adjustment

NOTE : Checking the Cable Card ID

The Media Receiver has a slot for a cable card that is used for managing your information by the cable TV company. The following procedure allows you to check your Cable Card ID and the Host ID.

1

Press HOME MENU.

2

Select "Tuner Setup". (▲/▼ then ENTER)

3

Select "Channel Setup". (◀/▶ then ENTER)

4

Select "POD ID". (▲/▼)

•

The Host ID and Cable Card ID appear.

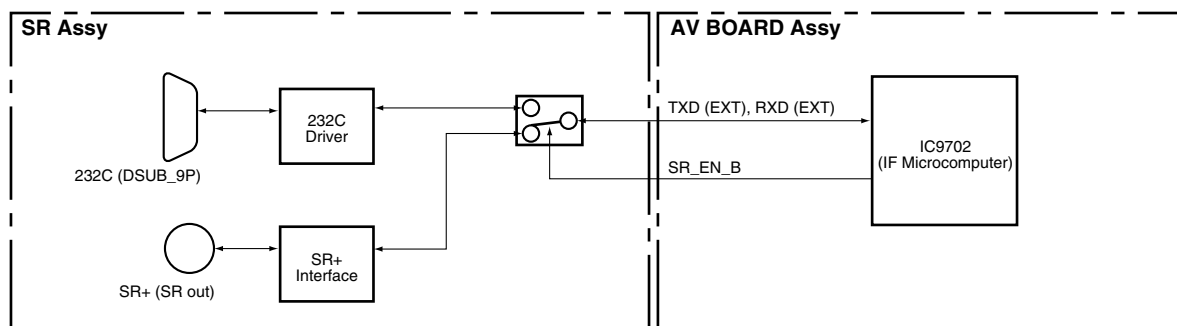
5

Press HOME MENU to exit the menu.

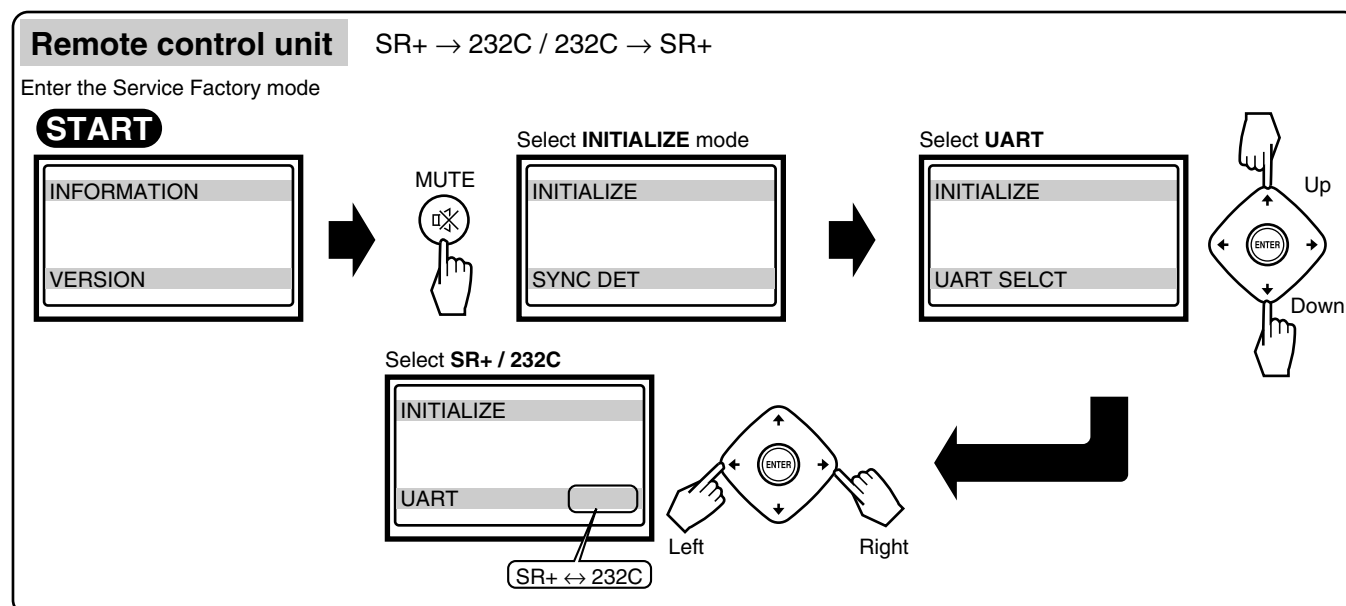
6.3 USING RS-232C COMMANDS

For the PDP-435HD and PDP-505HD series Plasma Displays, the circuitry is structured as shown in the diagram below to support the SR+ system. Controlling with either the SR+ system or RS-232C commands can be selected. As the SR+ system is selected at shipment, to control with RS-232C commands in servicing it is necessary to switch the paths. After servicing, be sure to return the setting to the SR+ system.

● Rough diagram of switching between SR+ and RS-232C



● How to switch from SR+ to RS-232C



Tips: How to change the SR+/RS-232C setting without entering Service Factory mode

Hold the **VOLUME** \triangleleft or \triangleleft key on the remote control unit pressed for 3-10 seconds during Standby mode. Then within 3 seconds after the key is released, hold the **2-screen** \blacksquare key on the remote control unit pressed for 3-10 seconds. Then within 3 seconds after the key is released, use the **SET** key on the remote control unit to set to RS-232C (the baud rate last selected is chosen) or the **HOME MENU** key to set to SR+.

6.4 ADJUSTMENT ITEMS

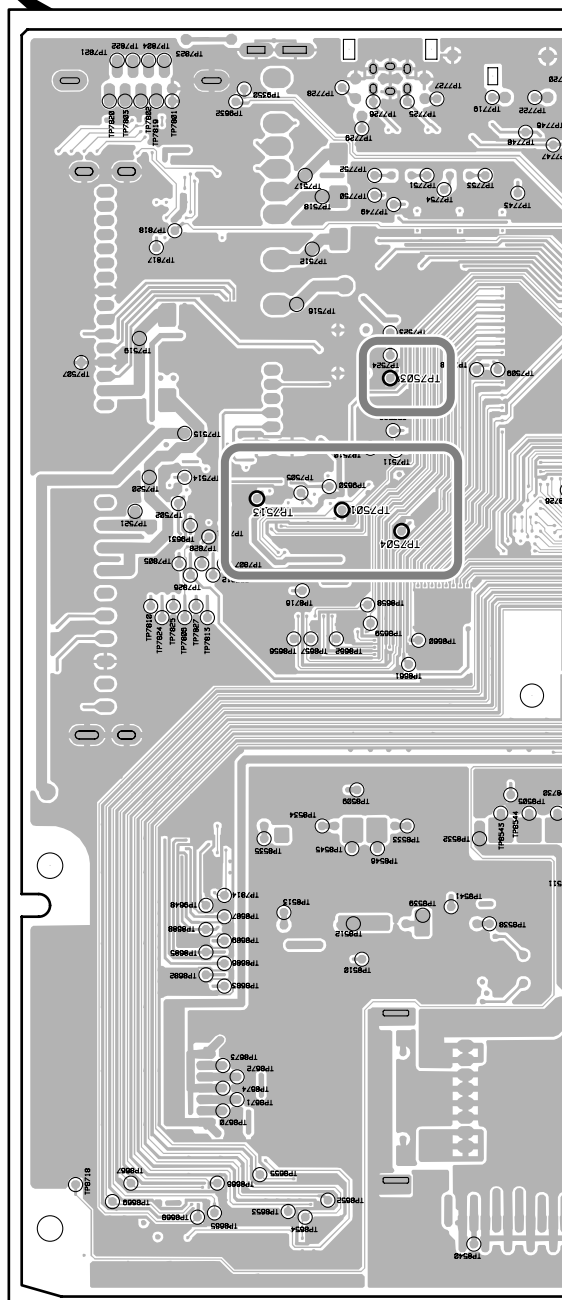
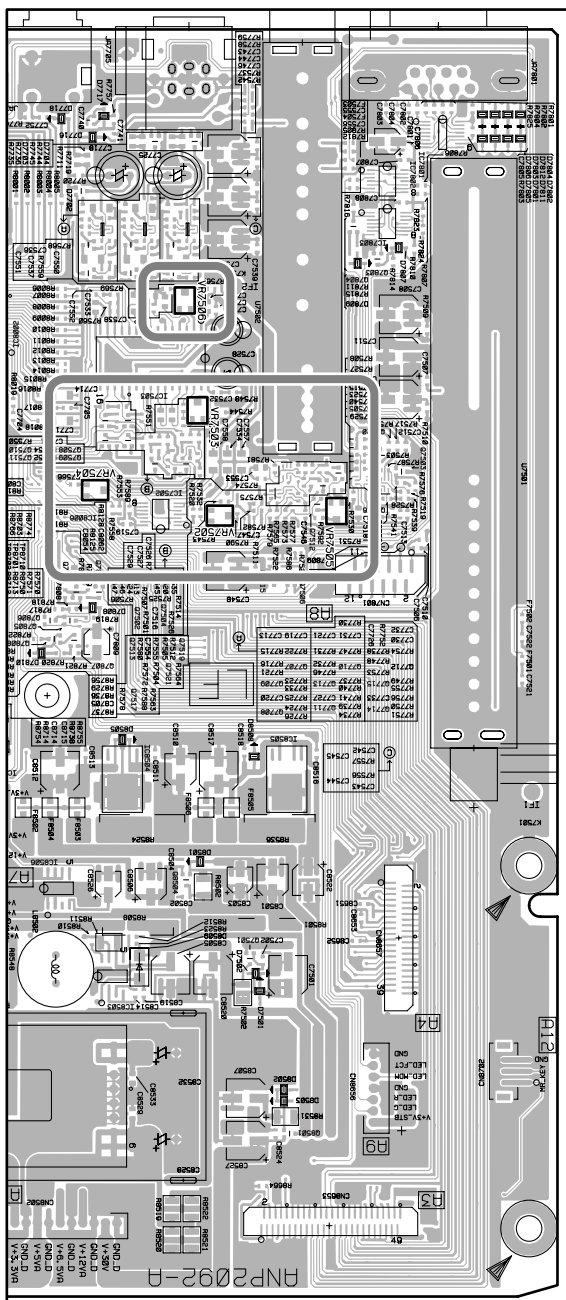


If readjustment is necessary because of adjustment error at shipment, perform adjustments as shown below.

● Adjustment Points

B AV BOARD ASSY

Rear side

SIDE A**SIDE B**

1 Audio Level Adjustment

Equipment : SG, Digital mutimeter / Tester

Condition : Input RF level 60dB μ V
1kHz MONO 100%

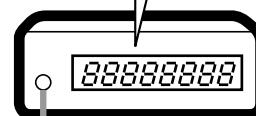
START



Select
ANT A 55.25 MHz
AIR
02
1 ~ 9



VR7502
(AV BOARD Assy)



Adjust TP7501 to 110mVrms

Digital multimeter
/ Tester

TP7501
(AV BOARD Assy)

2 Video Level Adjustment

Equipment : SG, Oscilloscope

Condition : Input RF level 60dB μ V
Modulation 87.5%
White bar 100%

START



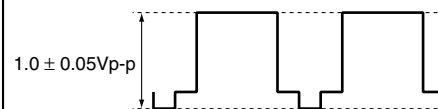
Select
ANT B 55.25 MHz
AIR
02
1 ~ 9



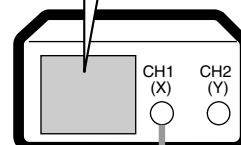
VR7505
(AV BOARD Assy)



Adjust TP7513 to 1.0 \pm 0.05Vp-p



Oscilloscope



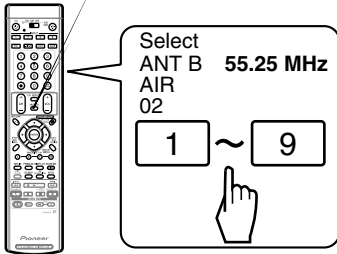
TP7513
(AV BOARD Assy)

3 Audio Level Adjustment

Equipment : SG, Digital mutimeter / Tester

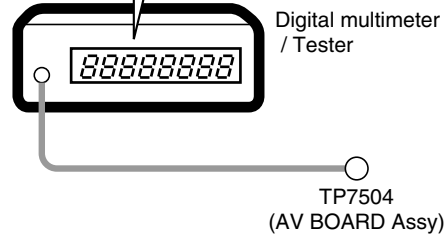
Condition : Input RF level 60dB μ V
1kHz MONO 100%

START



VR7504
(AV BOARD Assy)

Adjust TP7504 to 110mVrms

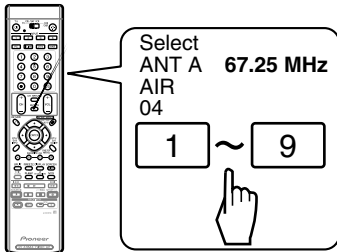


4 MSP Adjustment

Equipment : SG, Digital mutimeter / Tester

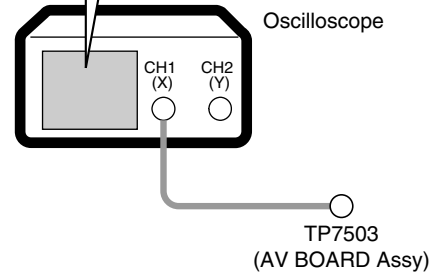
Condition : Input RF level 60dB μ V
300Hz STEREO 100% Lch Only

START



VR7506
(AV BOARD Assy)

Adjust
Turn the wave pattern into a minimum.

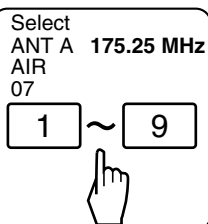


5 MSP Adjustment

Equipment : SG

Condition : Input RF level 60dB μ V
5kHz STEREO 100% Lch Only

START

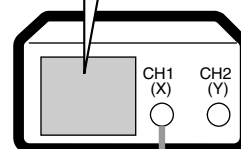


VR7503
(AV BOARD Assy)



Adjust
Turn the wave pattern into a minimum.

minimum



Oscilloscope

TP7503
(AV BOARD Assy)

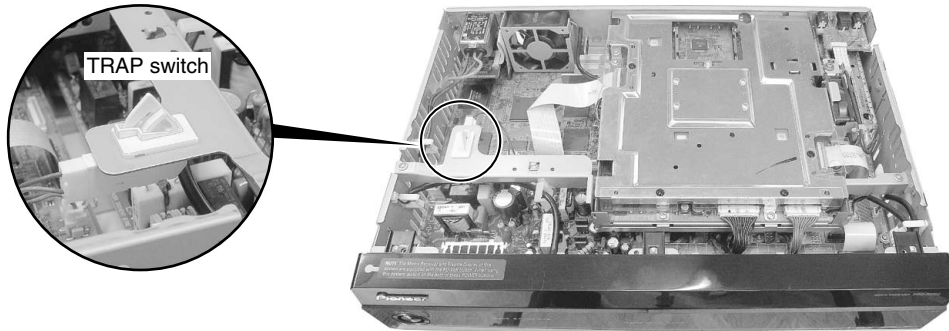
6.5 TRAP SWITCH

● Outline and Notes

- A For video data transmission from the Media Receiver to the PDP-435HD and PDP-505HD-series Plasma Displays, digital signals are used. Therefore, this unit adopts the HDCP (High-bandwidth Digital Content Protection) system for copyright protection. This unit is also provided with a detection switch (TRAP switch) that will prohibit the unit from being turned on again "if the upper plate of the unit is accidentally opened," in order to prevent the panel technology from being leaked out.

The TRAP switch is disabled while the unit is turned off.

When performing internal diagnosis of the PDP, fix the switch to the OFF position using adhesive tape before turning on the unit. After servicing, be sure to remove the adhesive tape.



B

C

D

E

F

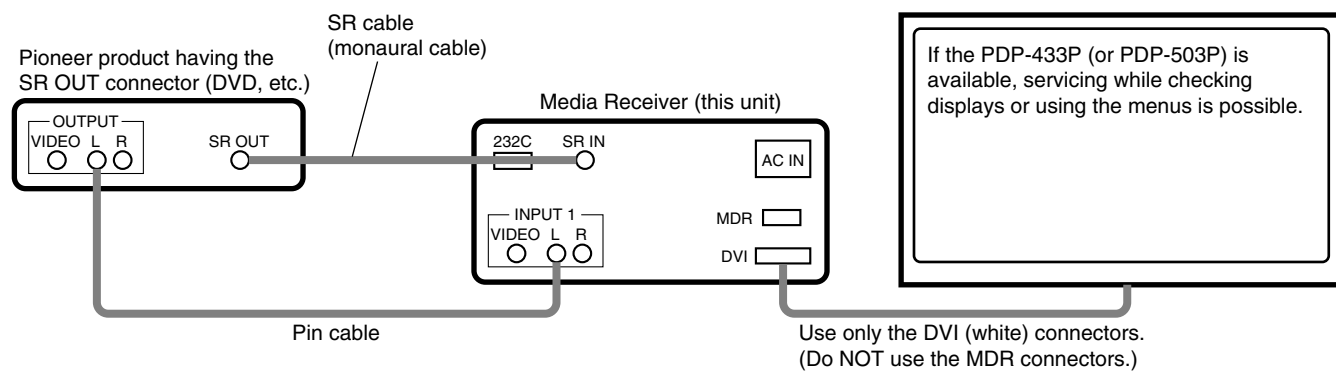
6.6 SERVICING USING ONLY THE MEDIA RECEIVER

For servicing of the PDP-435HD and PDP-505HD-series Plasma Display using only the Media Receiver, the following two methods can be used:

● Remote controlling using SR connections

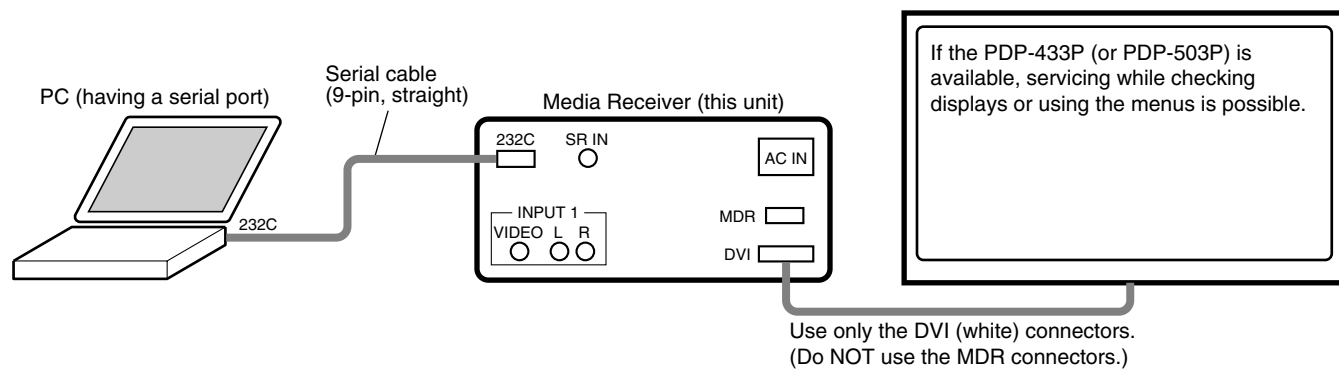
About connections

- Connect the SR OUT connector of a Pioneer product having that connector (a DVD in the following example) and the SR IN connector of the Media Receiver, using the SR cable. As the remote control sensor is not provided with the Media Receiver, this connection is required for using the remote control unit if the panel is not available. In this case, aim the remote control unit at the remote control sensor of the device (DVD in this case).
- Connect either the audio or the video output of the device (DVD in the example) and the corresponding audio or video input of the Media Receiver, using a cable with phono plugs. This connection is required in order to use ground in common with the SR cable, because with the SR cable connection the ground connection for signal reference is not available. In the example, the audio L channel is used, but the audio R channel or video can be used instead.
- If the plasma display for a previous model, such as the PDP-433P or PDP-503P, is available, servicing while checking displays or using the menus is possible. For this, connect only the DVI connectors (white) of the Media Receiver and the plasma display. The MDR connector of the Media Receiver must not be used, even though it has the same shape and number of pins, because signals assigned to the connectors differ. Using the MDR connector may damage the unit.



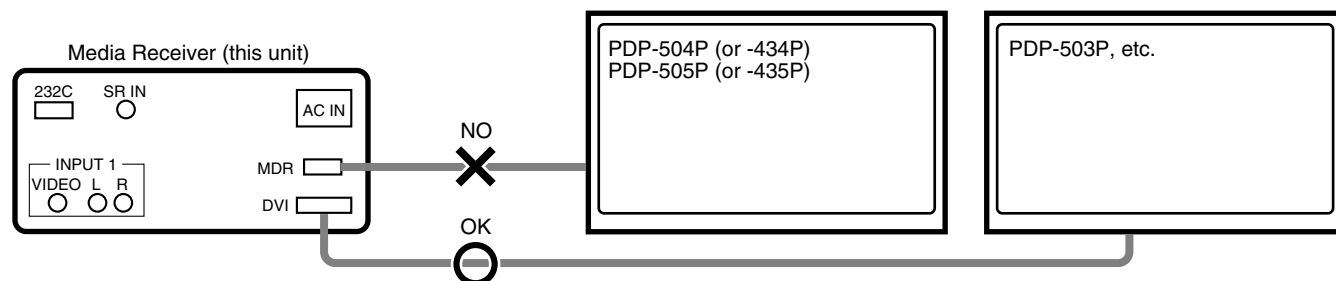
● RS-232C control using a PC

In this case the setting is RS-232C 38400bps, and the setting of "6.3. USING RS-232C COMMANDS" is not related. Please set baud rate of PC in 38400bps. For connection with the PC, use a straight cable.



● Note on connection

If the MDR connector of the PDP-434HD or -504HD-series is used, it is considered that the PDP-434P (or -504P) is connected, and the Media Receiver operates on such precondition, **which may result in a failure of the Media Receiver. Be sure not to connect to the MDR connector.** (Do NOT use the MDR connector when servicing the Media Receiver alone.)



6.7 SERVICE FACTORY MODE

To operate in Service Factory mode, use the supplied remote control unit.

How to enter Service Factory Mode

Prease refer to the technical documentation (Service Know-How). same as

Operation in Service Factory mode

● Functions whose settings are set to OFF

The settings for the following functions are set to OFF when Service Factory mode is entered (including when the "FAY" command is received):

- Two-screen operations (input function set on the main side is selected)
- P ZOOM
- STILL
- Detection of the TRAP switch (The log in the EEPROM is retained.)

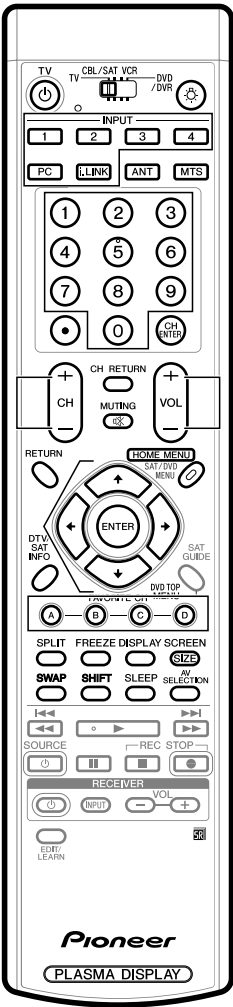
● User data

User data will be treated as follows:

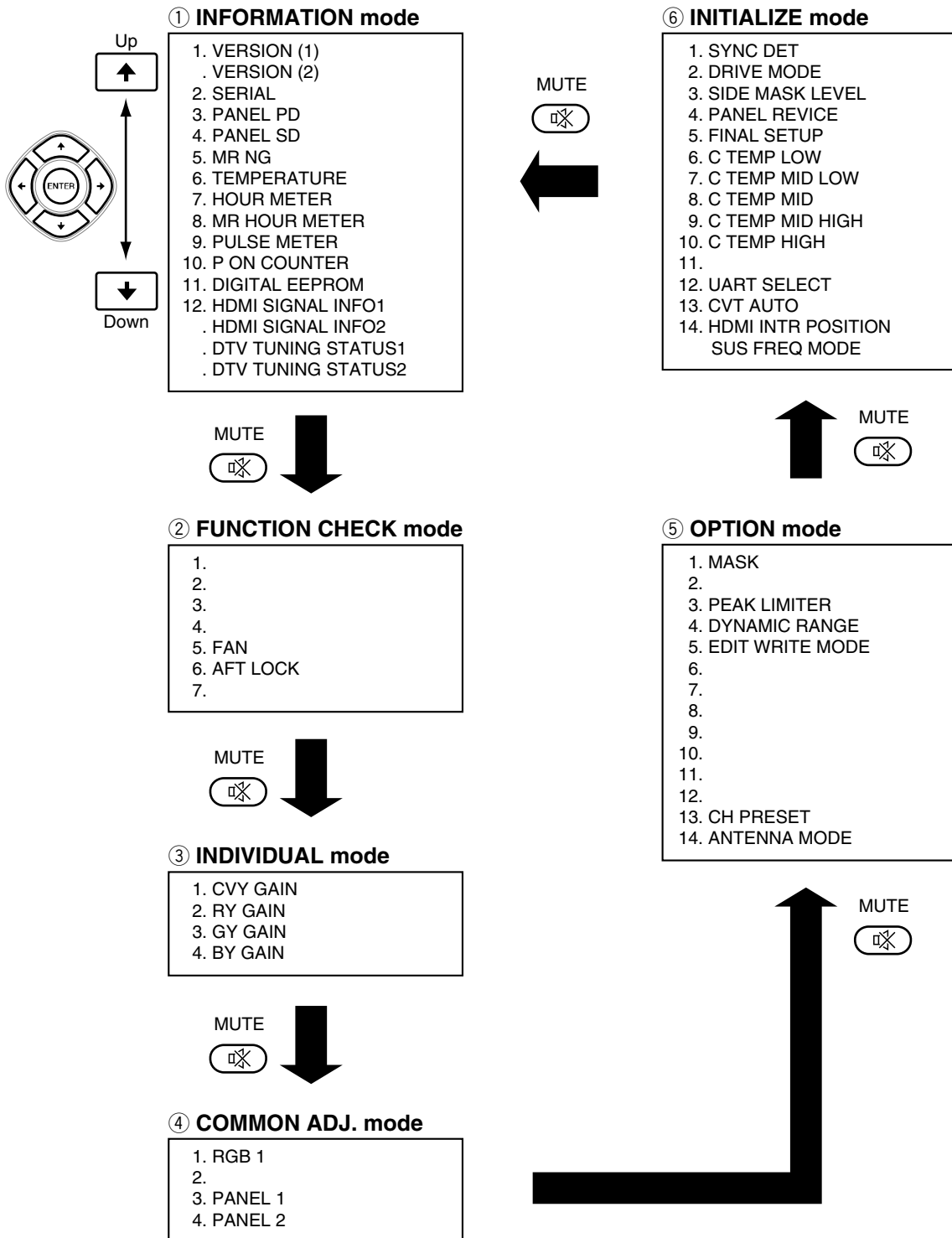
- User data on picture- and audio-quality adjustments are not reflected (data stored in memory will be retained).
- Data on screen position are reset to the default values (data stored in memory will be retained).

Remote control codes in Service Factory mode

SR Function	Main Function	Remarks
Muting	Switching the main items	Shifting to the next main item
DOWN	Switching the subtitled items	Shifting downward to the next subtitled item
UP	Switching the subtitled items	Shifting upward to the next upper layer
LEFT	Increasing the adjustment value	Increasing the adjustment value
RIGHT	Decreasing the adjustment value	Decreasing the adjustment value
SET	Switching layers	Shifting downward or upward to the next lower or upper layer
INPUT	Selecting input	Shifting the input to the next function
INPUTxx	Selecting input	Switching the input to xx
CH+	Increasing the channel number	Advancing a preset channel (effective when Function is set to TV)
CH-	Decreasing the channel number	Turning a preset channel backward (effective when Function is set to TV)
Numeric keys	Function: TV	Function: TV (previously selected channel number is selected)
POWER	Power OFF	Turning the power off
FACTORY	Factory OFF	Turning Service Factory mode off
MENU	Menu ON	Turning Service Factory mode off and Menu mode on

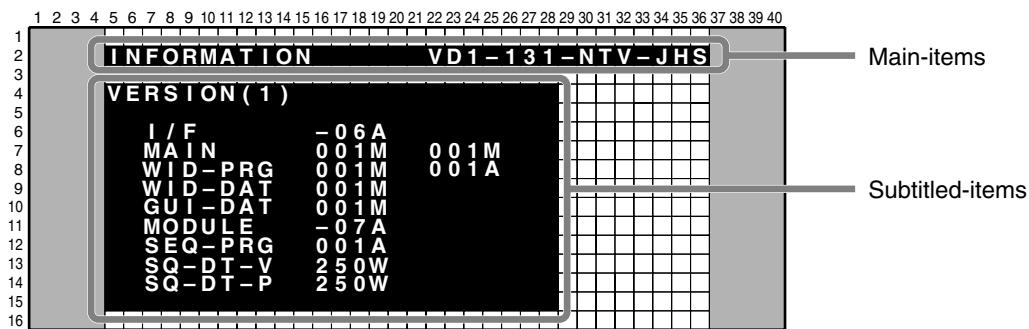


■ Changes of the Service Factory menus



■ Indications in Service Factory mode

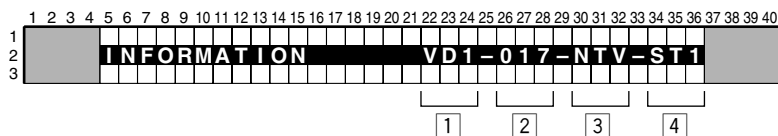
A



B

■ Main-item indications

Four parameters are displayed:



C

1 Input function

Input Functions	On-Screen Display
VIDEO1	VD1
Terrestrial wave A	ARA
Terrestrial wave B	ARB
CABLE A	CBA
CABLE B	CBB

2 SIG mode and screen size

Note: See SIG-Mode Tables. (See next page.)

3 Color system and signal type

Color System and Signal Type		On-Screen Display
NTSC	Composite input/ S-connector input	NTV
BLACK/WHITE		BWV
Y / CB / CR		CBR
Y / PB / PR		PBR
RGB		RGB
Digital video signal		DIG

4 Option (Destination, etc.)

Options	On-Screen Display
HD system in North America(Regular)	ATS
HD system in North America(ELITE)	AHS

F

● SIG-Mode Table

The signal mode is displayed in three characters:

First character: Resolution of the input signal (numerics for the video signals, and alphabets for the PC signals)

Second character: Grouping of the V frequencies

SIG-Mode table for video signals (resolutions and V frequencies)

SIG-Mode	Signal Type	Vertical Frequency fv (Hz)	Horizontal Frequency fh (kHz)
13*	SDTV • 525i	60.000	15.750
21*	SDTV • 625i	50.000	15.625
33*	SDTV • 525p	60.000	31.500
41*	HDTV • 1125i	50.000	28.125
43*		60.000	33.750
51*	SDTV • 625p	50.000	31.250
61*	HDTV • 750p	50.000	37.500
63*		60.000	45.000

SIG-Mode table for PC signals (resolutions and V frequencies)

SIG-Mode	Signal Type	Vertical Frequency fv (Hz)	Horizontal Frequency fh (kHz)
A2*	720 × 400	56.000	24.825
A5*		70.087	31.469
A8*		85.050	37.861
B3*	640 × 480	59.940	31.469
B4*		66.666	35.000
B6*		72.809	37.861
B7*		75.000	37.500
B8*		85.000	43.300
C3*	852 × 480	60.000	31.680
D2*	800 × 600	56.250	35.1556
D3*		60.317	37.879
D6*		72.188	48.077
D7*		75.000	46.875
D8*		85.061	53.674
E7*	832 × 624	74.550	49.725
F3*	1024 × 768	60.004	48.363
F5*		70.069	56.476
F7*		75.029	60.023
F8*		84.997	68.677
G2*	1280 × 768	56.250	45.113
G3*		59.833	47.986
G5*		70.000	56.137

A

2nd Character	Reference V Frequency	Remarks
–	–	No signal
1	50	
2	56	
3	60	
4	66	
5	70	
6	For interpolation of 72-Hz area	For distinguishing between 70-Hz or 75-Hz area
7	75	
8	85	
9 (spare)	–	
?	–	Out of range

B

Third character: Selection of the screen size by the user is displayed.
(O: available, ×: not available)

C

3rd Character	Description on GUI	VIDEO	PC	Remarks
0	DOT BY DOT	×	○	
1	4 : 3	○	○	
2	FULL (FULL1)	○	○	
3	ZOOM	○	×	
4	CINEMA	○	×	
5	WIDE	○	×	Indude WIDE-HD
6	FULL 14 : 9	○	×	
7	CINEMA 14 : 9	○	×	
8	FULL2	○	○	HDTV1035i
9	OVERSCAN	○	×	

D

E

F

① INFORMATION mode

● Operation items

No.	Function / Display	Content
1	VERSION (1)	The flash memory versions for each device are displayed. (common part)
2	VERSION (2)	The flash memory versions for each device are displayed. (individual part)
3	SERIAL	For displaying the serial number of the product (not used)
4	PANEL PD	Power-down generated on the panel side and its time of occurrence are displayed.
5	PANEL SD	Shutdown generated on the panel side and its time of occurrence are displayed.
6	MR NG	Power-down and/or shutdown generated on the Media Receiver side and their/its time of occurrence are displayed.
7	TEMPERATURE	Information on temperature is displayed.
8	HOUR METER	Cumulative power-on time to the panel is displayed.
9	MR HOUR METER	Cumulative power-on time to the Media Receiver is displayed.
10	PULSE METER	The pulse meter value on the panel side is displayed.
11	P ON COUNTER	The number of times the power to the panel was turned on is displayed.
12	DIGITAL EEPROM	The status of the backup data for the module microcomputer is displayed.
13	HDMI SIGNAL INFO.	The file information of HDMI series are displayed.
14	DTV TUNING STATUS	Information of DTV Tuning Status are displayed.

1. VERSION (1)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1																																							
2																																							
3																																							
4																																							
5																																							
6																																							
7																																							
8																																							
9																																							
10																																							
11																																							
12																																							
13																																							
14																																							
15																																							
16																																							

Flash memory of Device	On-Screen Display
User IF microcomputer (MR: IC8702)	I / F
Main microcomputer (MR: IC7207)	MAIN
Program for IC 3 (MR: IC7101)	WID-PRG
Enhanced data for IC 3 (MR: IC7101)	WID-DAT
GUI data for IC 3 (MR: IC7101)	GUI-DAT
Module microcomputer (for the PDP)	MODULE
Program for IC 4 (for the PDP)	SEQ-PRG
Sequence data for IC 4 Video	SQ-DT-V
Sequence data for IC 4 PC	SQ-DT-P

2. VERSION (2)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1																																							
2																																							
3																																							
4																																							
5																																							
6																																							
7																																							
8																																							
9																																							
10																																							
11																																							
12																																							
13																																							
14																																							
15																																							
16																																							

Device	Name Display	Version Display	Remarks
CCD-UCOM	CCD	4 character	
DTV Software Version	DTV	4 character	
DTV hardware Version	DTV-VER	2 character	
DTV hardware Serial	DTV-SRL	6 character	
USER Password	PASSWORD	4 character	

4. PANEL PD

A

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1	INFORMATION																			VD1-013-NTV-ST1																			
2	PANEL PD																																						
3	FIRST																			SECOND																			
4	1	X-DRV																		POWER																			
5	2	Y-SUS																		Y-DCDC																			
6	3	SCAN																		-----																			
7	4	Y-DCDC																		POWER																			
8	5	SCN-5V																		POWER																			
9	6	ADRS																		-----																			
10	7																																						
11	8																																						
12																																							
13																																							
14																																							
15																																							
16																																							

Power-down information only on the panel side is displayed.

• Panel power-down information

No.	Type of Power-down	On-Screen Display	No.	Type of Power-down	On-Screen Display
1	No corresponding item	-----	8	Power-down of the address system	ADRS
2	Power-down of the main power supply system	POWER	9	Power-down of the X-DRIVE circuitry	X-DRV
3	Power-down of the scanning system	SCAN	A	Power-down of the X-DC/DC converter	X-DCDC
4	Power-down in the path between the scanning system and 5-V power supply	SCN-5V	B	Power-down of the X-SUS system	X-SUS
5	Power-down of the Y-Drive system	Y-DRV	C	Power-down of the driving IC power supply system	D-DCDC
6	Power-down of the Y-DC/DC converter	Y-DCDC	D	Power-down of the driving stopped	IC4 (IC5401)
7	Power-down of the Y-SUS system	Y-SUS	F	Power-down point unidentified	UNKNOWN

5. PANEL SD

D

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1	INFORMATION																			VD1-013-NTV-ST1																			
2	PANEL SD																																						
3	MAIN																			SUB																			
4	1	AUDIO																		-----																			
5	2	MD-IIC																		VOLIC																			
6	3	TEMP1																		-----																			
7	4																																						
8	5																																						
9	6																																						
10	7																																						
11	8																																						
12																																							
13																																							
14																																							
15																																							
16																																							

The shutdown log only on the panel side is displayed.

• Panel shutdown information

6. MR NG

[illegible]

Information on power-down and shutdown of the Media Receiver side is displayed.

- **Media Receiver NG information**

No.	Type of Failure	On-Screen Display (MAIN)	Remarks
1	Abnormality in module microcomputer communication	MODULE	
2	Abnormality in 3-wire serial communication of the main microcomputer	MA-SRL	Subcategories exist.
3	Abnormality in main microcomputer IIC communication	MA-IIC	Subcategories exist.
4	Abnormality in main microcomputer communication	MAIN	
5	Abnormality in temperature of the Media Receiver	TEMP2	
6	Fan stopped.	FAN	
7	Abnormality in communication of the digital tuner	UART	Subcategories exist.
8	Abnormality in the ASIC power supply on the MR side	M-DCDC	

- **Subcategory information**

Type of Shutdown	Subcategory	Remarks
MA-SRL	IF microcomputer (IC8702), IC2 (IC7004), IC3 (IC7101)	
MA-IIC	MA-EEP (IC7205), IC1-M (IC6107), IC1-S (IC6255), HDMI1 (IC6801), HDMI2 (IC6881)*2, AD-M (IC6402), AD-S (IC6602), IC6 (IC6951), CCD (IC8903)*2, FE1 (U7501), FE2 (U7502)*2, AV-SW1 (IC8002), AV-SW2 (IC8005), TX-COM (IC8904)*3, MPX (IC7502)*3, TX-BSY(IC8904)*3	*2 : U.S. model only *3 : Europe model and General area model
Interval UART Communication	PS/RST	No power, or reset status continued
	RETRY	The signal 0x02 (ready) has not been received.
	DEVICE	Receive System Query Request Command
	CD-COM	PC Card Module Communication
	CD-DEV	PC Card Module
	CD-RST	PC Card Reset NG

7. TEMPERATURE

[illegible]

TEMP1: The value read from the temperature sensor built into the panel is displayed in the range of 000-255.

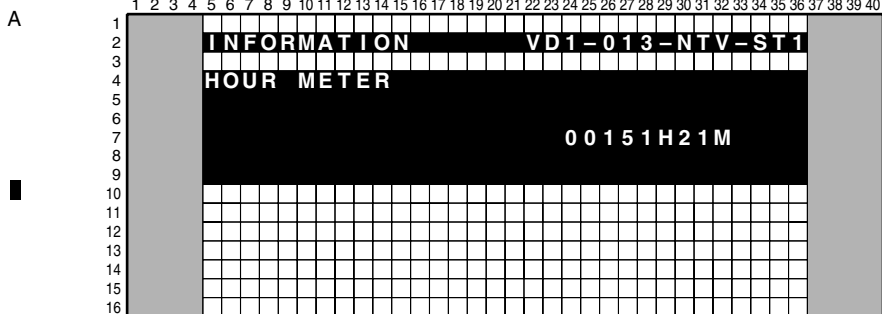
Note: Refer to the service manual of the panel.

TEMP2: The value read from the temperature sensor built into the Media Receiver is displayed in the range of 000-255. For reference, the approximate value for 60°C is 86 and for 35°C is 67.

Reference: When TEMP2 exceeds 100 (about 78°C), SD LED flash 11 times.

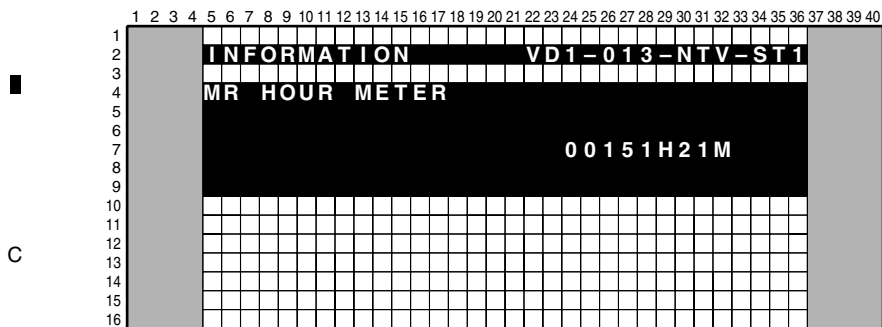
FAN: The value of the Fan output is displayed. At shipment, the output is controlled in 2 steps, and the value for strong output is set to about 131, and the value for weak output is set to about 93.

8. HOUR METER



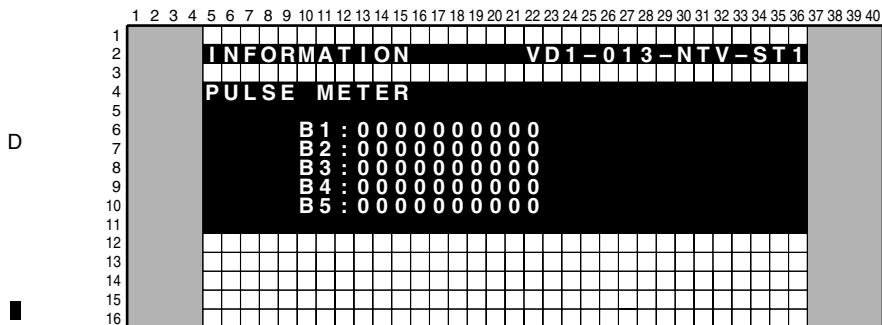
The cumulative power-on time of the panel is displayed.

9. MR HOUR METER



The cumulative power-on time of the Media Receiver is displayed.

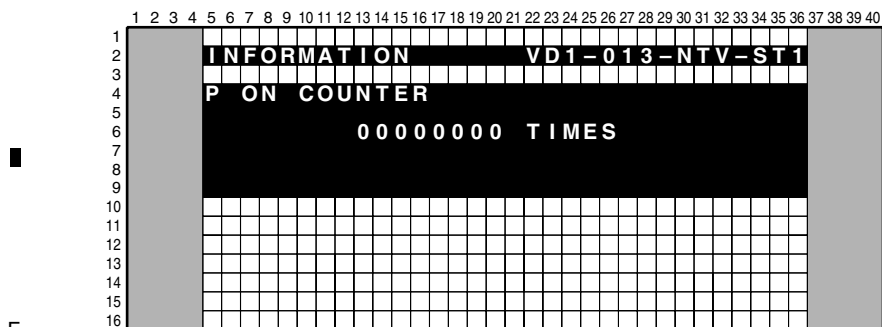
10. PULSE METER



The cumulative number of pulses of the panel is displayed.

Note : Dividing screen into sixteen times sixteen and counting five different locations on a screen.
Each item, it's counted total 3840 pixels (for 50 inch) or 3072 pixels (for 43 inch) discharging.
(1280/16 x 768/16 = 3840, 1204/16 x 768/16 = 3072)

11. P ON COUNTER

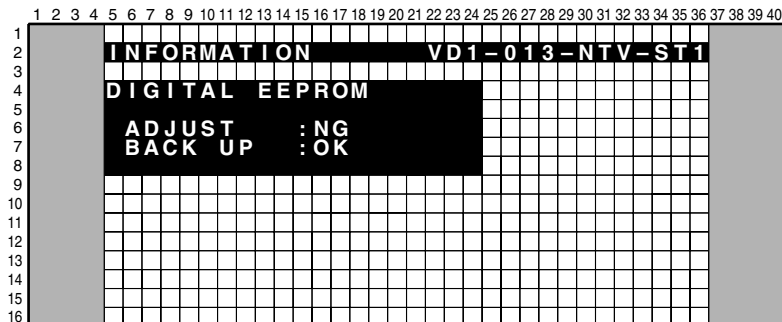


The cumulative number of times the panel was turned on is displayed.

12. DIGITAL EEPROM

When the DIGITAL Assy of the PDP is to be replaced, the adjustment values in it can be temporarily stored in the ROM then be written on the new Assy after replacement.

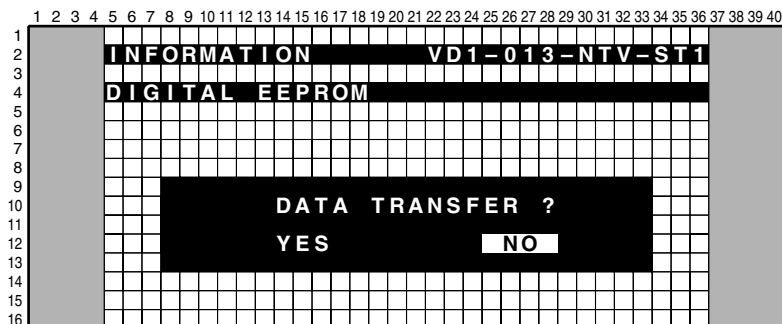
Whether adjustment has been made on the DIGITAL Assy of the PDP or not (i.e., in the state of a new service part), and whether the data on any adjustment values are retained in the backup ROM or not are displayed.



• Downloading the data from the backup ROM

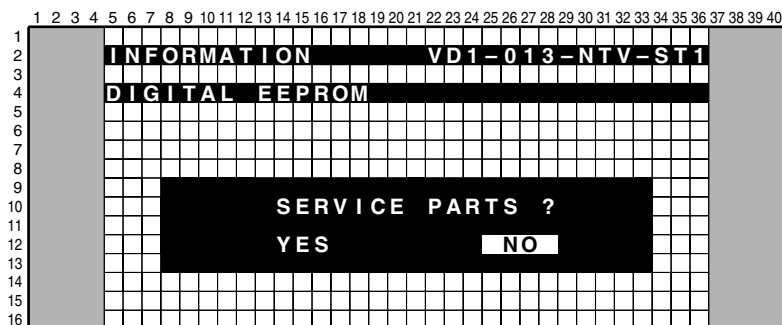
(This must be performed after the DIGITAL Assy is replaced.)

To download the data from the backup ROM, press the ENTER key while the above screen is displayed. The display changes as shown below. Move the cursor to YES then press the ENTER key. The data in the backup ROM are downloaded into the new Assy.



• Clearing the data in the ROM of the DIGITAL Assy

The display below is automatically displayed after either YES or NO is selected on the display shown above. Move the cursor to YES then press the ENTER key. Then all data on adjustment values in the ROM of the DIGITAL Assy are cleared.



13. HDMI SIGNAL INFO

A

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1																																								
2	INFORMATION																VD1-131-NTV-JHS																							
3																																								
4	HDMI SIGNAL INFO 1																																							
5																																								
6	0 x 6 0																- 4 E : 0 0				0 x 6 8																- 4 5 : 0 0			
7																	- 4 F : 0 0																				- 4 6 : 0 0			
8																	- 5 0 : 0 0																				- 4 7 : 0 0			
9																	- 5 1 : 0 0																				- 4 8 : 0 0			
10																	- 5 5 : 0 0																				- 8 4 : 0 0			
11	0 x 6 8																- 2 A : 0 0																				- 8 5 : 0 0			
12																	- 3 0 : 0 0																				- 8 6 : 0 0			
13																	- 3 1 : 0 0																				- 8 7 : 0 0			
14																	- 4 4 : 0 0																				- 8 8 : 0 0			
15																																								
16																																								

B Technical examination display
(Reading status registers in HDMI receiver and displaying them by HEX value.)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
1																																										
2																																										
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15																																										
16																																										

For technical discussion

14.DTV TUNING STATUS

D

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1	INFORMATION																			CBA-432-DIG-KHS																			
2																																							
3																																							
4	DTV TUNING STATUS 1																																						
5																																							
6	INBAND FREQUENCY																			: 6 7 5 M H z																			
7	MODULATION																			: Q A M 2 5 6																			
8	STATUS																			: L O C K																			
9	AGC																			: 8 5 %																			
10																																							
11	CORRECTED ERROR																			: 1 2 3 4 5																			
12	UNCORRECTED ERROR																			: 6 7 8																			
13	TIME																			: 4 5 s e c																			
14																																							
15																																							
16																																							

E

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1	INFORMATION																			CBA-432-DIG-KHS																			
2																																							
3																																							
4	DTV TUNING STATUS 2																																						
5																																							
6	OOB FREQUENCY																			: 7 0 . 0 0 M H z																			
7	STATUS																			: U N L O C K																			
8	AGC																			: 7 2 %																			
9																																							
10	PROGRAM NUMBER																			: 3																			
11	VIDEO PID																			: 2 0 1																			
12	AUDIO PID																			: 2 0 2																			
13	PCR PID																			: 2 0 1																			
14	VIDEO FORMAT																			: 1 0 8 0 I / 1 6 : 9																			
15																																							
16																																							

② FUNCTION CHECK

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1																																							
2																																							
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4																																							
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13																																							
14																																							
15																																							
16																																							

No last memory in this menu

No.	Display	Detail	Remarks	232C Command
1	FAN <=>	MIN ⇔ CNT ⇔ MAX		*1
2	AFT <=>	UNLOCKED ⇔ LOCKED	For Factory use	AFT

2.1 FAN

Controls FAN speed by force. (MIN : STOP, CNT : Follows movement specifications, MAX : High)

Temp sensor is working only displaying data value in service factory mode.

After getting off service factory mode, this function is set to normal automatically.

2.2 AFT LOCK

For production line use only

Stop AFT tuner received function and receive a center frequency.

After turning off a unit (including stand-by mode), this setting is set normal (AFT function) automatically.

It's performed to two tuner and DTV tuner to U.S. model.

⑤ OPTION mode

A

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
2	OPTION																VD1-131-NTV-JHS																							
3																																								
4																																								
5																																								
6																																								
7																																								
8																																								
9																																								
10																																								
11																																								
12																																								
13																																								
14																																								
15	MASK (+)																																							
16																																								

B

No.	Function/Display	Content	Corresponding RS-232C Command
1	MASK (+)	Selecting the pattern mask of IC4	MSK
2	PEAK LIMITTER	ON ⇔ OFF	PLT
3	DYNAMIC RANGE	ON ⇔ OFF	DYR
4	EDID WRITE MODE	DISABLE ⇔ ENABLE	EPA
5	CH PRESET	FACTORY ⇔ USER	

C

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
2	OPTION																VD1-131-NTV-JHS																							
3																																								
4																																								
5																																								
6																																								
7																																								
8																																								
9																																								
10																																								
11																																								
12																																								
13																																								
14																																								
15	MASK <=>																: 01 (P 6 0)																							
16																																								

D

The mask frequency can be cyclically changed (see the table below) by pressing the left or right cursor key. The mask pattern can be cyclically changed by pressing the up or down cursor key. Approximately 2 seconds after either the up or down cursor key is pressed, the mask screen will appear.

- **Frequency selection while the mask is displayed**

No.	Function/Display	Content	Corresponding RS-232C Command
0	V50	Video 50-Hz sequence	F50
1	V60 (initial value)	Video 60-Hz sequence	F60
2	P60	PC 60-Hz sequence	F61
3	P70	PC 70-Hz sequence	F70
4	V72	Video 72-Hz sequence	F72
5	V75	Video 75-Hz sequence	F75

E

F

⑥ INITIALIZE mode

(For managing switching of the initial settings and destination setting)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1																																							
2																																							
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12																																							
13																																							
14																																							
15																																							
16																																							

No.	Function/Display	Content
1	SYNC DET (+)	
2	DRIVE MODE (+)	
3	SIDE MASK LEVEL (+)	
4	PANEL REVICE (+)	
5	FINAL SETUP (+)	
6	C TEMP LOW (+)	
7	C TEMP MID LOW (+)	
8	C TEMP MID (+)	
9	C TEMP MID HIGH (+)	
10	C TEMP HIGH (+)	
11	UART SELECT <=>	1200-232C ⇔ *** ⇔ 38400-232C ⇔ 9600-SR+
12	CVT AUTO <=>	DISABLE ⇔ ENABLE (For Factory use)
13	HDMI INTR POSITION(+)	
14	SUS FREQ MODE<=>	000⇔ *** ⇔ 007

- When there is a modification log, if the "Display" key is held pressed for at least 3 seconds while the above display is displayed, the modification log will be cleared.

• UART SELECT

Option No.	Function / Display	Operation / Control	Remarks
1 (initial setting)	9600-SR+	To set to SR+ (9600 BPS)	For switching external communication between RS-232C and SR+
2	1200-232C	To set to RS-232C (1200 BPS)	
3	2400-232C	To set to RS-232C (2400 BPS)	
4	4800-232C	To set to RS-232C (4800 BPS)	
5	9600-232C	To set to RS-232C (9600 BPS)	
6	19200-232C	To set to RS-232C (19200 BPS)	
7	38400-232C	To set to RS-232C (38400 BPS)	

Tips: How to change the SR+/RS-232C setting without entering Service Factory mode
Refer to "6.3 USING RS-232C COMMANDS".

6.8 LIST OF RS-232C COMMANDS

RS-232C commands can be used in Service Factory mode.

Before using RS-232C commands, it is necessary to change the factory presetting. See "6.3. USING RS-232C COMMANDS."

Command	Operation	Remarks
A		
ABL	Adjusting power consumption	
B		
BCP	Transmitting the backup data to the DIGITAL Assy	
BYG	BY GAIN	
C		
CHM	Clearing the hour meter	
CNG	Clearing MR NG information	
CPC	Clearing the power-on counter	
CPD	Clearing power-down information	
CPM	Clearing the pulse meter	
CSD	Clearing shutdown information	
D		
OSDS01	Turning on the on-screen display	While the OSDSOI command is in force, the duration of on-screen display is
OSDS00	Turning off the on-screen display	On-screen display is prohibited.
DRF	Turning off the power for the drive system	
DRN	Turning on the power for the drive system	
DW*	Decreasing the adjustment value by *	*: 1-9, 0 (0 means 10), or F (making the adjustment value the minimum)
E		
EDWS00	Prohibiting writing of EDID data	
EDWS01	Permitting writing of EDID data	
F		
F50	Video 50-Hz sequence	
F60	Video 60-Hz sequence	
F61	PC 60-Hz sequence	
F70	PC 70-Hz sequence	
F72	Video 72-Hz sequence	
F75	Video 75-Hz sequence	
FAJ	Determining the adjustment values for the unit	
FAY	Turning Service Factory mode on	
FAN	Turning Service Factory mode off	The GUI equivalent to that usually displayed when the power is turned on is displayed.
G		The GET-group commands are effective at any time, including during Standby mode.
GAJ	Obtaining the adjustment values for the panel	
GMM	Switching the gamma levels	Setting value: 000-007
GNG	Obtaining NG data of the MR	
GNM	Obtaining the serial No. of the MR	
GPC	Obtaining the P ON COUNTER value	
GPD	Obtaining power-down information	
GPR	Obtaining the PANEL REVISE data	
GPM	Obtaining the PULSE METER data	
GPW	Obtaining the PANEL W/B data	
GS1	Obtaining the version data for each device	
GS2	Obtaining data on various operations	
GS6	Obtaining the any version	
GSD	Obtaining shutdown information	
GSL	Adjusting side mask G	

Command	Operation	Remarks
I		
INPS01	Input selection: Input 1	
INPS02	Input selection: Input 2	
INPS03	Input selection: Input 3	
INPS04	Input selection: Input 4	
INPS05	Input selection: Input 5	
INA	Selection of the tuner for terrestrial analog signals (Antenna A)	
INB	Selection of the tuner for terrestrial analog signals (Antenna B)	
ING	Selection of iLink input functions	
M		
MSKS00	Mask mode: OFF	
MSKS01	White: 0-100%	
MSKS02	Aging mask	
MSKS03	Aging mask (detection of still picture: OFF)	
MSKS10	RAMP slant 1	
MSKS11	RAMP slant 4	
MSKS12	RAMP slant 1 shifting	
MSKS13	RAMP slant 4 shifting	
MSKS14	V RAMP	
MSKS15	H/V RAMP	
M1G	IC1 MAIN GAIN	
M1O	IC1 MAIN OFFSET	
MSKS20	WINDOW-Low: 102 / High: 870	
MSKS21	WINDOW-Low: 102 / High: 1023	
MSKS22	WINDOW-Low: 0 / High: 1023	
MSKS23	WINDOW-High: 1023 (CENTER)	
MSKS24	WINDOW-PEAK WINDOW	Area 1.25%
MSKS25	WINDOW-1/7 vertical window	
MSKS26	WINDOW-magenta/green stripe	
MSKS27	WINDOW-green/magenta stripe	
MSKS28	Window (black & white [1 × 8], checkered pattern [for EMG check])	
MSKS29	Window (for W/B adjustment, magenta, yellow)	
MSKS40	Wiper to prevent phosphor burn	
MSKS30	COLOR BAR	
MSKS31	Slanted lines	
MSKS51	Raster-white	
MSKS52	Raster-red	
MSKS53	Raster-green	
MSKS54	Raster-blue	
MSKS55	Raster-black	
MSKS56	Raster-cyan	
MSKS57	Raster-magenta	
MSKS58	Raster-yellow	
MSKS59	Raster-cyan 274	
MSKS60	Raster-50 flesh color	
MSKS61	Raster-50 light purple	
MSKS62	Raster-50 sky blue	
MSKS63	Raster-red 779	
MSKS64	Raster-cyan 218	
MSKS65	Raster-cyan 448	
MSKS66	Raster-43 flesh color	
MSKS67	Raster-red 640	
MSKS68	Raster-magenta 98	
MSKS69	Raster-43 sky blue 1	
MSKS70	Raster-43 sky blue 2	
MSKS71	Raster-43 light purple	
MSKS72	Raster-blue 960	
MSKS73	Raster-gray 511 (spare)	
MSKS74	Raster-gray 511 (spare)	

A

Command	Operation	Remarks
M		
MRG	AD MAIN R GAIN	
MRO	AD MAIN R OFFSET	
MGG	AD MAIN G GAIN	
MGO	AD MAIN G OFFSET	
MBG	AD MAIN B GAIN	
MBO	AD MAIN B OFFSET	
P		
PBH	Panel W/B B-HIGH adjustment	
PBL	Panel W/B B-LOW adjustment	
PGH	Panel W/B G-HIGH adjustment	
PGL	Panel W/B G-LOW adjustment	
POF	Turning the power OFF	
PRH	Panel W/B R-HIGH adjustment	
PRL	Panel W/B R-LOW adjustment	
R		
RYG	RY GAIN	
RSL	Adjustment of side mask R	
S		
S1G	IC1 SUB GAIN	
S1O	IC1 SUB OFFSET	
SBG	AD SUB B GAIN	
SBO	AD SUB B OFFSET	
SFI	Initialization of the full mask table	
SGG	AD SUB G GAIN	
SGO	AD SUB G OFFSET	
SRG	AD SUB R GAIN	
SRO	AD SUB R OFFSET	
T		
TSY	Enabling the TRAP switch	The command is effective even during Standby mode.
U		
UP*	Increasing the adjustment value by *	*: 1-9, 0 (0 means 10), or F (making the adjustment value the maximum)
UAJ	Resetting all data in the DIGITAL Assy to those of a new service part	
V		
VOF	Offset voltage adjustment	
VSU	SUS voltage adjustment	
X		
XD1	D1 trailing-edge pulse of X-SUS	
XD2	D2 trailing-edge pulse of X-SUS	
XU1	U1 leading-edge pulse of X-SUS	
XU2	U2 leading-edge pulse of X-SUS	
Y		
YD1	D1 trailing-edge pulse of Y-SUS	
YD2	D2 trailing-edge pulse of Y-SUS	
YD3	D3 trailing-edge pulse of Y-SUS	
YD4	D4 trailing-edge pulse of Y-SUS	
YU1	U1 leading-edge pulse of Y-SUS	
YU2	U2 leading-edge pulse of Y-SUS	

E

F

■ GET Commands

GS1: Returning information on the model and the version of the software

Order	Data	Size
1	Data on the display	3 bytes
2	Version of the module microcomputer	4 bytes
3	Version of the IC4-MANTA	4 bytes
4	Sequence version (50VIDEO)	4 bytes
5	Sequence version (50PC)	4 bytes
6	Sequence version (43VIDEO)	4 bytes
7	Sequence version (43PC)	4 bytes
8	Version of the IF microcomputer	4 bytes
9	Version of the main microcomputer boot Software	4 bytes
10	Version of the main microcomputer	4 bytes
11	Version of the IC3 boot Software	4 bytes
12	Version of the IC3 Program	4 bytes
13	Version of the IC3 Enhanced	4 bytes
14	Version of the IC3 GUI	4 bytes

Breakdown of the data on the display

Data	Model
HD5	PDP-505HD series
HD4	PDP-435HD series

GPM: Returning the data of the PDP pulse meter

Order	Data	Size
1	Pulse meter (Block area 1)	10 bytes
2	Pulse meter (Block area 2)	10 bytes
3	Pulse meter (Block area 3)	10 bytes
4	Pulse meter (Block area 4)	10 bytes
5	Pulse meter (Block area 5)	10 bytes

Note: Refer to the service manual of the panel.

GPC: Returning the cumulative number of times the power to the PDP was turned on

Order	Data	Size
1	Power-on counter	8 bytes

• Commands for clearing the logs

Parameter	Corresponding RS-232C Command
PD INFO	CPD
SD INFO	CSD
NG INFO	CNG
HOUR METER	CHM
MR HOUR METER (Only for the system model)	CHR
PULSE METER	CPM
P ON COUNTER	CPC

A **GPD: Returning the power-down data (log) of the PDP**

Order	Data	Size	Order	Data	Size
1	Latest "1st PD" data	1 byte	17	Fifth latest "1st PD" data	1 byte
2	Latest "2nd PD" data	1 byte	18	Fifth latest "2nd PD" data	1 byte
3	Data of hour meter for the latest PD	7 bytes	19	Data of hour meter for the fifth latest PD	7 bytes
4	Data on temperature for the latest PD (TEMP1)	3 bytes	20	Data on temperature for the fifth latest PD (TEMP1)	3 bytes
5	Second latest "1st PD" data	1 byte	21	Sixth latest "1st PD" data	1 byte
6	Second latest "2nd PD" data	1 byte	22	Sixth latest "2nd PD" data	1 byte
7	Data of hour meter for the second latest PD	7 bytes	23	Data of hour meter for the sixth latest PD	7 bytes
8	Data on temperature for the second latest PD (TEMP1)	3 bytes	24	Data on temperature for the sixth latest PD (TEMP1)	3 bytes
9	Third latest "1st PD" data	1 byte	25	Seventh latest "1st PD" data	1 byte
10	Third latest "2nd PD" data	1 byte	26	Seventh latest "2nd PD" data	1 byte
11	Data of hour meter for the third latest PD	7 bytes	27	Data of hour meter for the seventh latest PD	7 bytes
12	Data on temperature for the third latest PD (TEMP1)	3 bytes	28	Data on temperature for the seventh latest PD (TEMP1)	3 bytes
13	Fourth latest "1st PD" data	1 byte	29	Eighth latest "1st PD" data	1 byte
14	Fourth latest "2nd PD" data	1 byte	30	Eighth latest "2nd PD" data	1 byte
15	Data of hour meter for the fourth latest PD	7 bytes	31	Data of hour meter for the eighth latest PD	7 bytes
16	Data on temperature for the fourth latest PD (TEMP1)	3 bytes	32	Data on temperature for the eighth latest PD (TEMP1)	3 bytes

C

• Details on "1st/2nd PD" data

Data	Power-down Point
0	No power-down
1	Not used (for MR-POWER)
2	P-POWER
3	SCAN
4	SCN-5V
5	Y-DRIVE
6	Y-DCDC
7	Y-SUS
8	ADRS
9	X-DRIVE
A	X-DCDC
B	X-SUS
C	DIG-DCDC
D	IC4
F	Power-down point not identified

E

F

GSD: Returning the shutdown data (log) of the PDP

Order	Data	Size	Order	Data	Size
1	Latest SD data	1 byte	17	Fifth latest SD data	1 byte
2	Data of subcategory for the latest SD	1 byte	18	Data of subcategory for the fifth latest SD	1 byte
3	Data of hour meter for the latest SD	7 bytes	19	Data of hour meter for the fifth latest SD	7 bytes
4	Data on temperature for the latest SD (TEMP1)	3 bytes	20	Data on temperature for the fifth latest SD (TEMP1)	3 bytes
5	Second latest SD data	1 byte	21	Sixth latest SD data	1 byte
6	Data of subcategory for the second latest SD	1 byte	22	Data of subcategory for the sixth latest SD	1 byte
7	Data of hour meter for the second latest SD	7 bytes	23	Data of hour meter for the sixth latest SD	7 bytes
8	Data on temperature for the second latest SD (TEMP1)	3 bytes	24	Data on temperature for the sixth latest SD (TEMP1)	3 bytes
9	Third latest SD data	1 byte	25	Seventh latest SD data	1 byte
10	Data of subcategory for the third latest SD	1 byte	26	Data of subcategory for the seventh latest SD	1 byte
11	Data of hour meter for the third latest SD	7 bytes	27	Data of hour meter for the seventh latest SD	7 bytes
12	Data on temperature for the third latest SD (TEMP1)	3 bytes	28	Data on temperature for the seventh latest SD (TEMP1)	3 bytes
13	Fourth latest SD data	1 byte	29	Eighth latest SD data	1 byte
14	Data of subcategory for the fourth latest SD	1 byte	30	Data of subcategory for the eighth latest SD	1 byte
15	Data of hour meter for the fourth latest SD	7 bytes	31	Data of hour meter for the eighth latest SD	7 bytes
16	Data on temperature for the fourth latest SD (TEMP1)	3 bytes	32	Data on temperature for the eighth latest SD (TEMP1)	3 bytes

• Details on the shutdown data

Data	Cause of Shutdown
0	No abnormality
1	IC4 (IC5401)
2	Module microcomputer IIC
3	Abnormality in RST2 (power decrease of DC-DC converter)
4	Panel having abnormally high temperature
5	Audio failure (short-circuiting of the speakers)
6 - F	Spares

• Data on the shutdown subcategories for the module microcomputer IIC

Data	Cause of Shutdown
0	No subcategory
1	EEPROM (4k) (IC5206)
2	EEPROM (2k) (IC4002)
3	Volume IC (IC3502)

NGG: Returning the data (logs) on power-down and shutdown of the Media Receiver

Order	Data	Size	Order	Data	Size
1	Latest NG data	1 byte	17	Fifth latest NG data	1 byte
2	Data of subcategory for the latest NG	1 byte	18	Data of subcategory for the fifth latest NG	1 byte
3	Data of MR hour meter for the latest NG	7 bytes	19	Data of MR hour meter for the fifth latest NG	7 bytes
4	Data on temperature for the latest NG (TEMP2)	3 bytes	20	Data on temperature for the fifth latest NG (TEMP2)	3 bytes
5	Second latest NG data	1 byte	21	Sixth latest NG data	1 byte
6	Data of subcategory for the second latest NG	1 byte	22	Data of subcategory for the sixth latest NG	1 byte
7	Data of MR hour meter for the second latest NG	7 bytes	23	Data of MR hour meter for the sixth latest NG	7 bytes
8	Data on temperature for the second latest NG (TEMP2)	3 bytes	24	Data on temperature for the sixth latest NG (TEMP2)	3 bytes
9	Third latest NG data	1 byte	25	Seventh latest NG data	1 byte
10	Data of subcategory for the third latest NG	1 byte	26	Data of subcategory for the seventh latest NG	1 byte
11	Data of MR hour meter for the third latest NG	7 bytes	27	Data of MR hour meter for the seventh latest NG	7 bytes
12	Data on temperature for the third latest NG (TEMP2)	3 bytes	28	Data on temperature for the seventh latest NG (TEMP2)	3 bytes
13	Fourth latest NG data	1 byte	29	Eighth latest NG data	1 byte
14	Data of subcategory for the fourth latest NG	1 byte	30	Data of subcategory for the eighth latest NG	1 byte
15	Data of MR hour meter for the fourth latest NG	7 bytes	31	Data of MR hour meter for the eighth latest NG	7 bytes
16	Data on temperature for the fourth latest NG (TEMP2)	3 bytes	32	Data on temperature for the eighth latest NG (TEMP2)	3 bytes

• Details on the NG data

Data	Cause of Shutdown
0	No abnormality
1	Power-down of the MR power supply
2	Communication failure of the module microcomputer
3	Three-wire serial communication failure of the main microcomputer
4	IIC communication failure of the main microcomputer
5	Communication failure of the main microcomputer
6	MR having abnormally high temperature
7	Fan stopped
8	Failure of the UART communication
9	Abnormality in RST2 of the MR (power decrease of DC-DC converter)

• Data on the subcategories for failure in 3-wire serial communication of the main microcomputer

Data	Cause of Shutdown
0	No subcategory
1	Communication failure of the IF microcomputer
2	IC2 communication failure
3	IC3 communication failure

• Data on the subcategories for failure in the digital tuner

Data	Cause of Shutdown
0	No subcategory (DTV for North America)
1	Communication failure of the DTV microcomputer (PS/RST)
2	DTV NG (DEVICE)
3	DTV microcomputer (CMD)
4	DTV microcomputer communication (RETRY)
5	PC CARD Communication NG (CD-COM)
6	PC CARD Mdule (CD-DEV)
7	PC CARD Reset NG (CD-RST)

• Data on the subcategories for failure in IIC communication of the main microcomputer

Data	Cause of Shutdown
0	No subcategory
1	EEPROM (128k) (IC7205)
2	GCR (Only domestic model)
3	IC1 main (IC6107)
4	IC1 sub (IC6255)
5	AD-PLL main (IC6402)
6	AD-PLL sub (IC6602)
7	IC6 (IC6951)
8	HDMI1 (IC6801)
9	HDMI2 (IC6881)
A	7-3VIDEO SW (IC8002)
B	6-2RGB SW (IC8005)
C	Front end 1 (U7501)
D	Front end 2 (U7502)
E	CC UCOM (IC8903)
F	PANEL LINK TX (IC7401)
G	PANEL LINK RX
H	Not used
I	Not used
K	AV-EEP ROM

GAJ: Returning drive-related adjustment values of the PDP

Order	Data	Size
1	Currently used ABL table	3 bytes
2	Upper limit of the electric power	3 bytes
3	Vsus adjustment value	3 bytes
4	Vofs adjustment value	3 bytes
5	X-SUS-U1 adjustment value (XU1)	3 bytes
6	X-SUS-U2 adjustment value (XU2)	3 bytes
7	X-SUS-D2 adjustment value (XD2)	3 bytes
8	X-SUS-D1 adjustment value (XD1)	3 bytes
9	Y-SUS-U1 adjustment value (YU1)	3 bytes
10	Y-SUS-U2 adjustment value (YU2)	3 bytes
11	Y-SUS-D1-2 adjustment value (YD2)	3 bytes
12	Y-SUS-D1-1 adjustment value (YD1)	3 bytes
13	Y-SUS-D2-2 adjustment value (YD4)	3 bytes
14	Y-SUS-D2-1 adjustment value (YD3)	3 bytes

Data	Table
AB1	ABL table for NTSC
AB2	ABL table for PAL
AB3	ABL table for PC

GPW: Returning RGB-level-related adjustment values of the PDP

Order	Data	Size
1	Panel W/B table currently used	3 bytes
2	Main contrast	4 bytes
3	Red contrast of the W/B adjustment value	4 bytes
4	Green contrast of the W/B adjustment value	4 bytes
5	Blue contrast of the W/B adjustment value	4 bytes
6	Main brightness	4 bytes
7	Red brightness of the W/B adjustment value	4 bytes
8	Green brightness of the W/B adjustment value	4 bytes
9	Blue brightness of the W/B adjustment value	4 bytes

Data	Table
PT1	ABL table for NTSC
PT2	ABL table for PAL
PT3	Reserved table

GS6: Returning information of the Flash Device

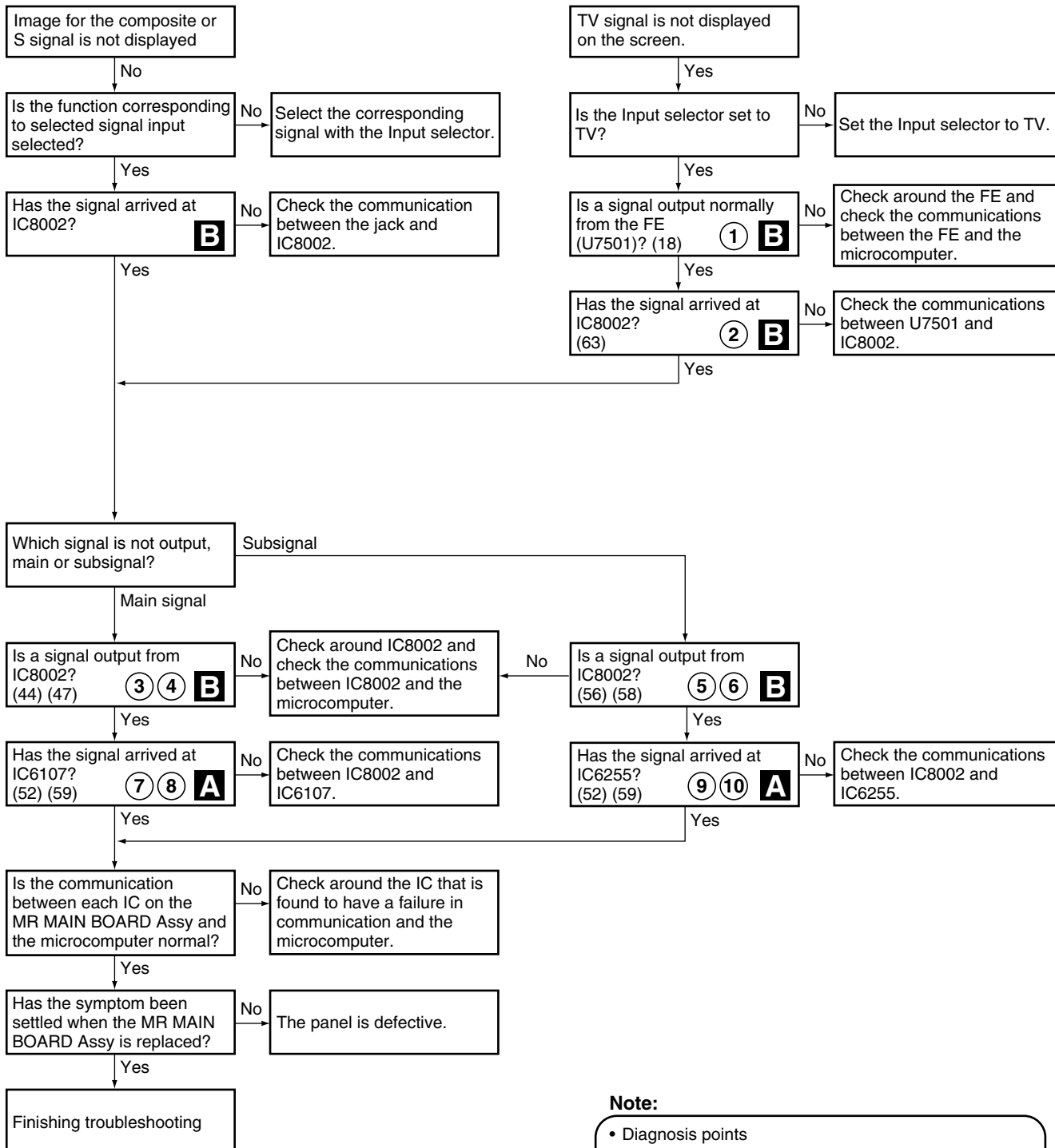
Order	Data	Size
1	Display Information	3 bytes
2	Version of the CCD UCOM	4 bytes
3	Version of the DTV Software	4 bytes
4	Version of the DTV Hardware	2 bytes
5	Version of the DTV Hardware Serial	6bytes
6	Not Used (Reserve)	56 bytes
7	User Password	4 bytes

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 TROUBLESHOOTING

● Image for the composite or S signal is not displayed



Note:

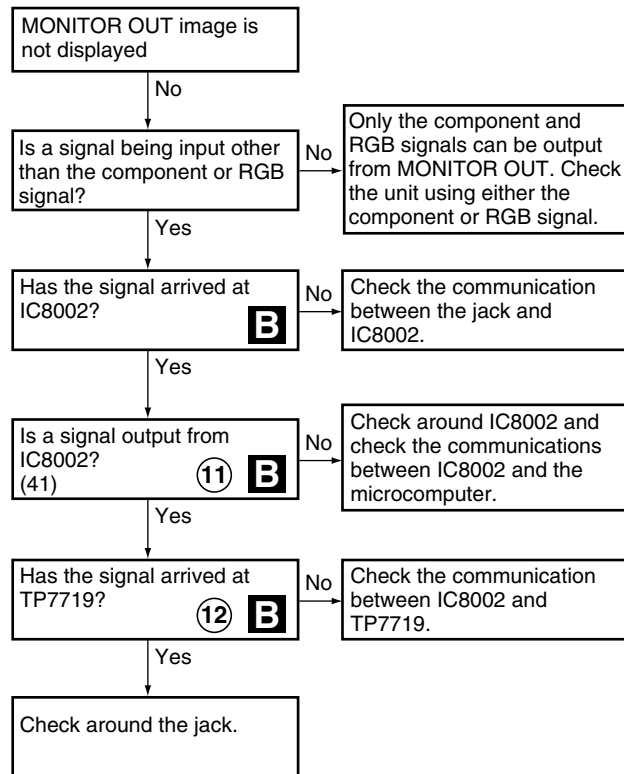
- Diagnosis points

A MR MAIN BOARD ASSY

B AV BOARD ASSY

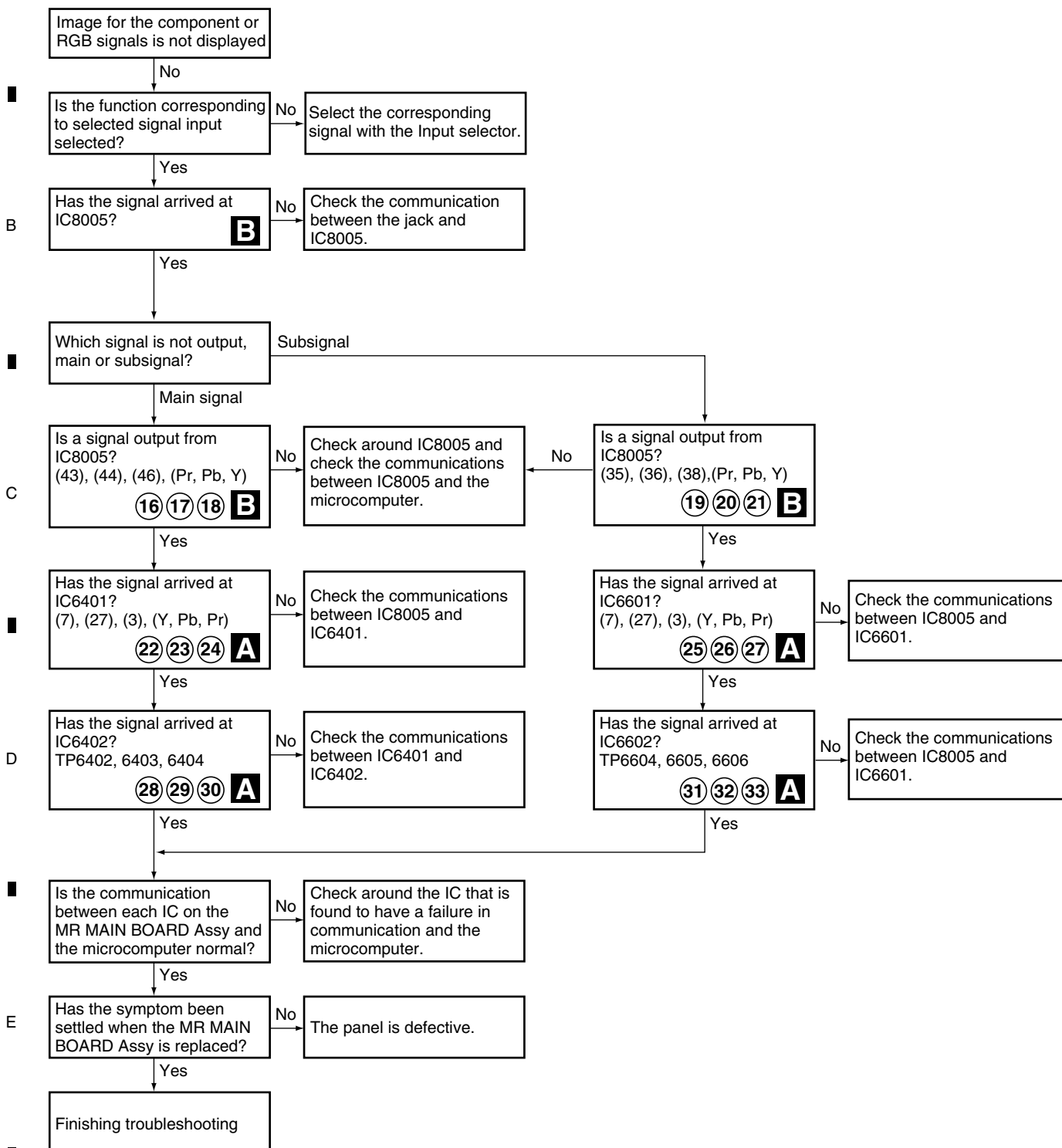
- For check the communication with the microcomputer, refer to the section 6.7 SERVICE FACTORY MODE.
- The encircled numbers denote measuring point in the Waveforms for Troubleshooting.

● MONITOR OUT image is not displayed



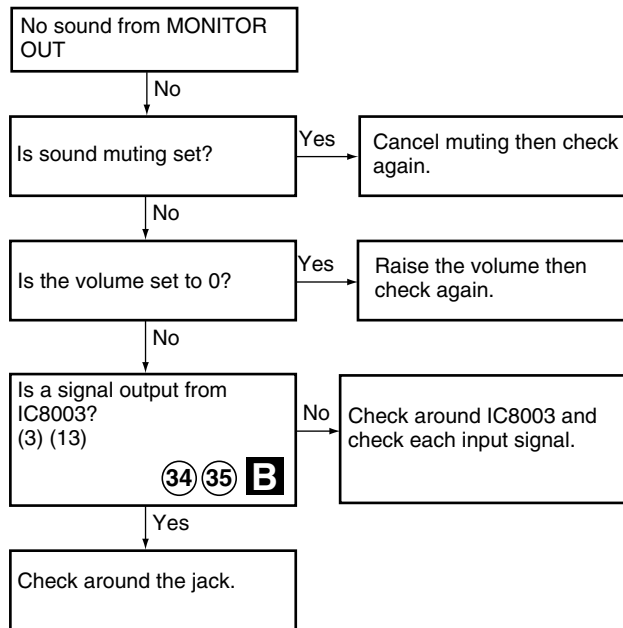
● Image for the component or RGB signals is not displayed

A



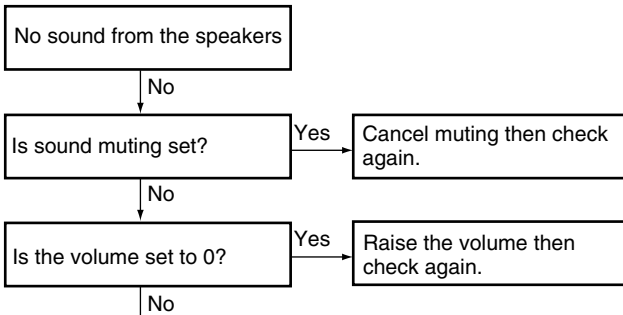
F

● No sound

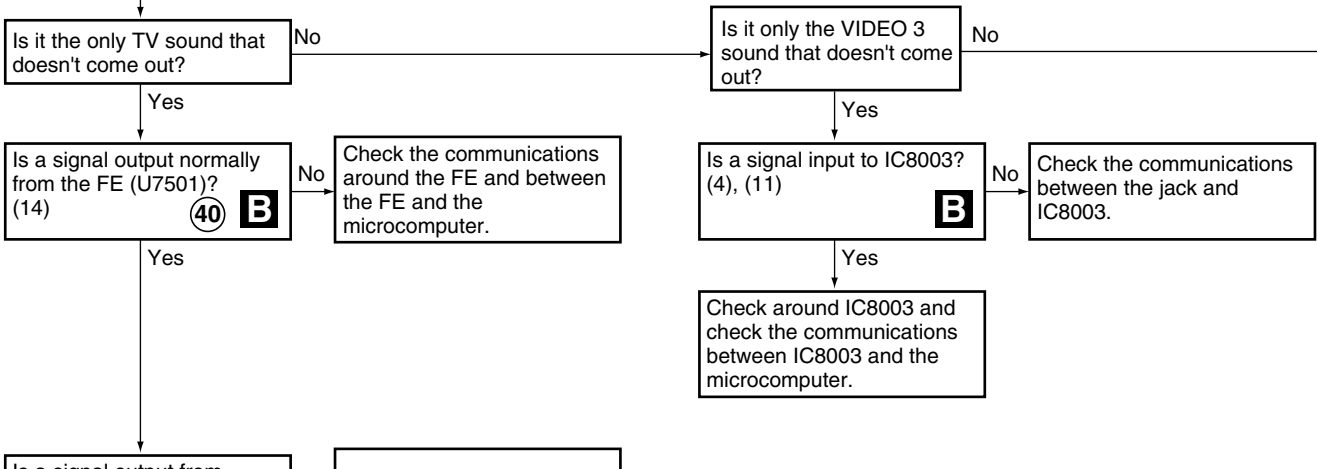


● No sound from the speakers (1/2)

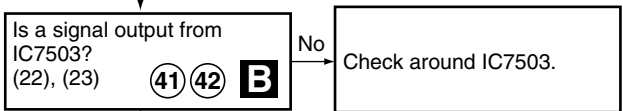
A



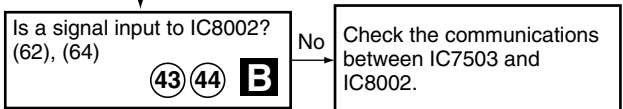
B



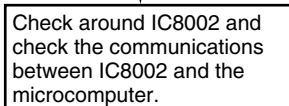
C



D

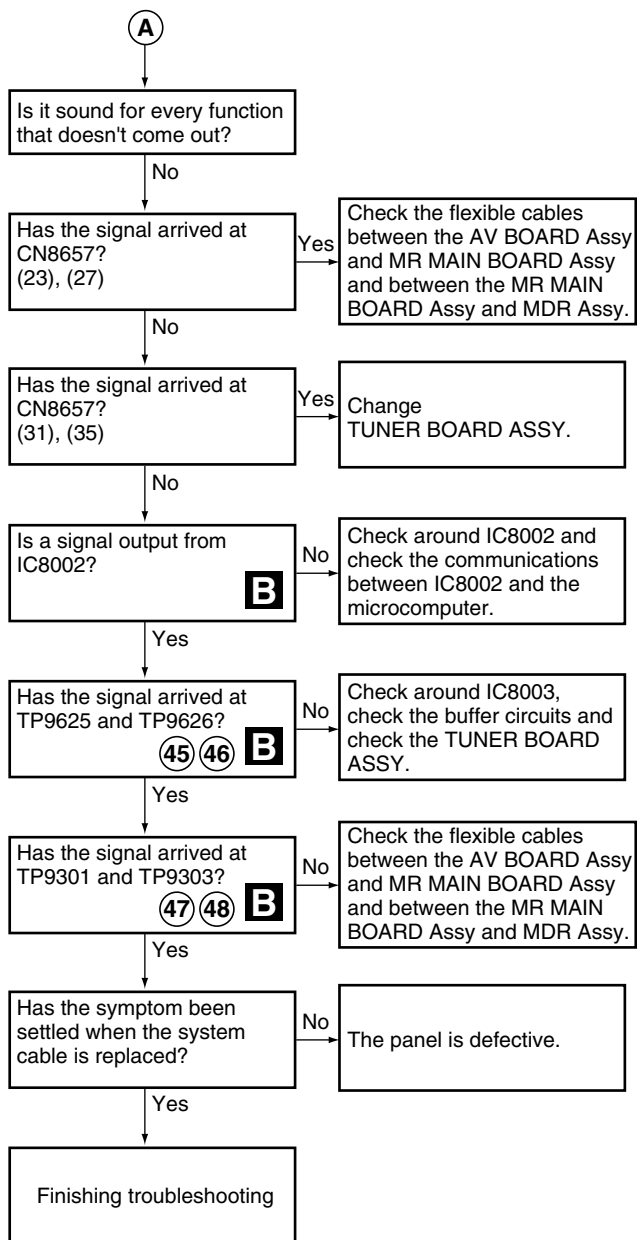


E



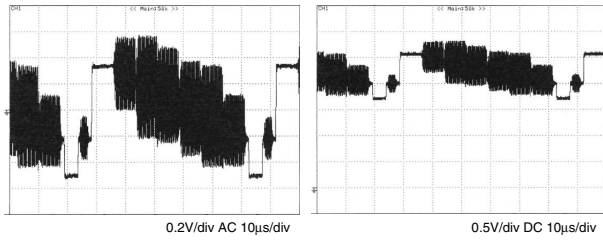
F

● No sound from the speakers (2/2)

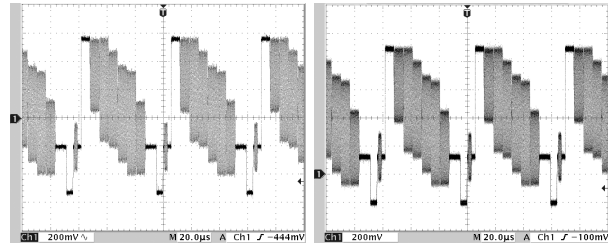


A

① U7501 - pin 18

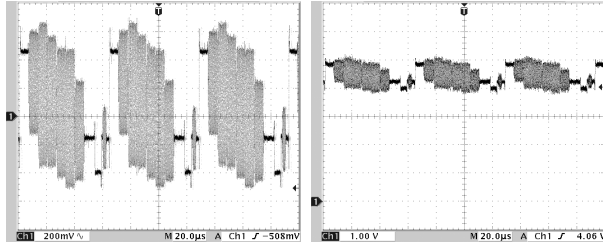


⑦ IC6107 - pin 52

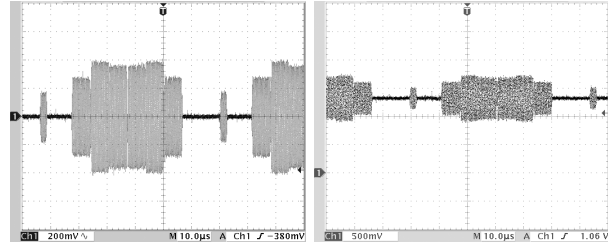


B

② IC8002 - pin 63

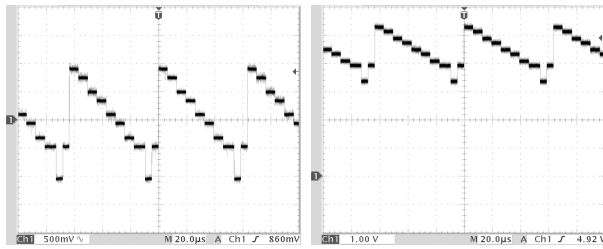


⑧ IC6107 - pin 59

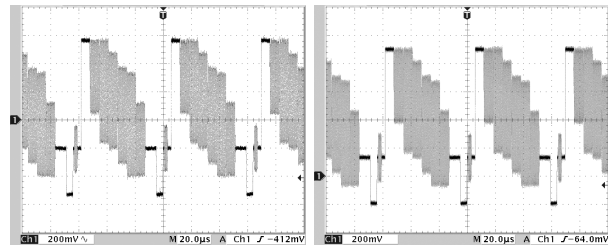


C

③ IC8002 - pin 44

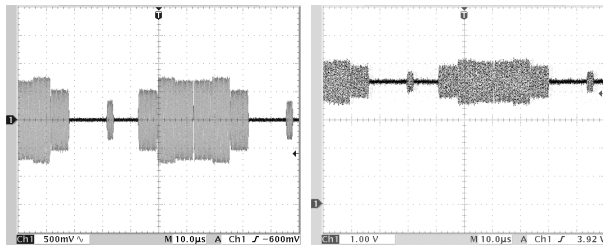


⑨ IC6255 - pin 52

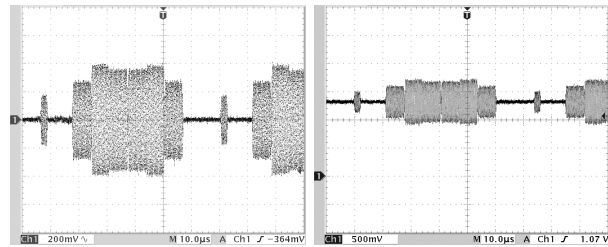


D

④ IC8002 - pin 47

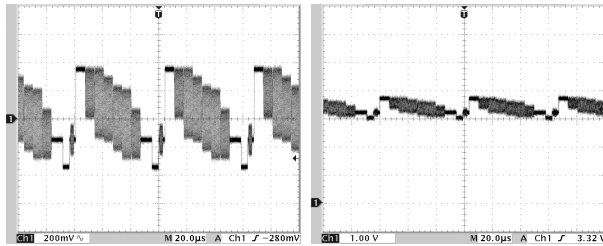


⑩ IC6255 - pin 59

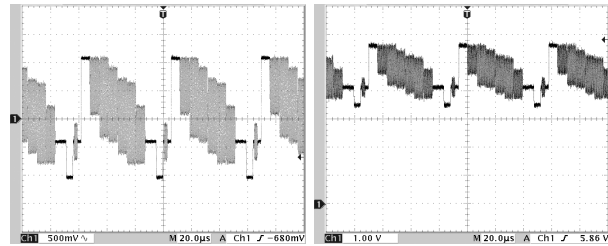


E

⑤ IC8002 - pin 56

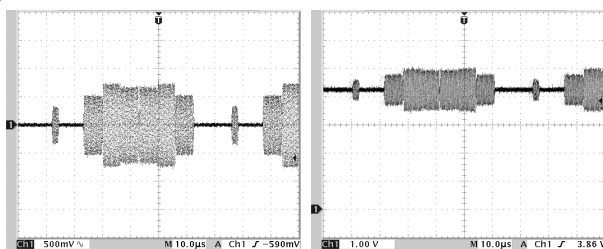


⑪ IC8002 - pin 41

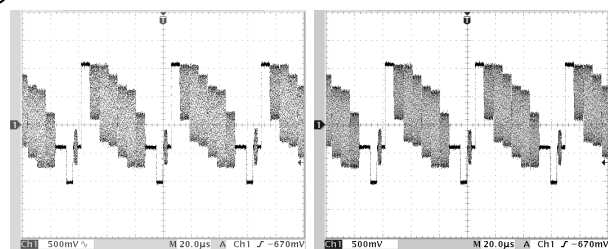


F

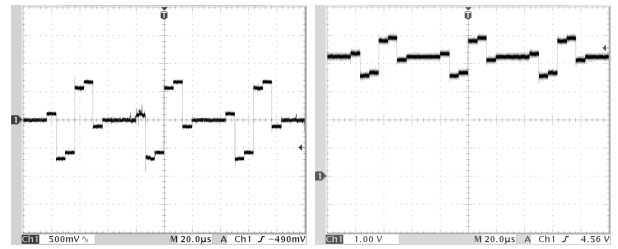
⑥ IC8002 - pin 58



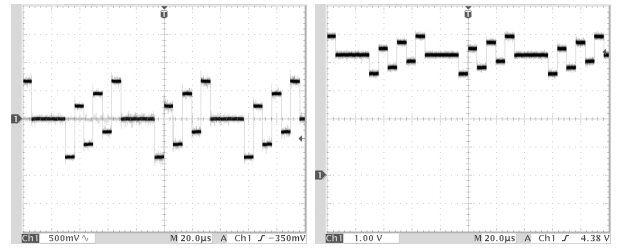
⑫ TP7719



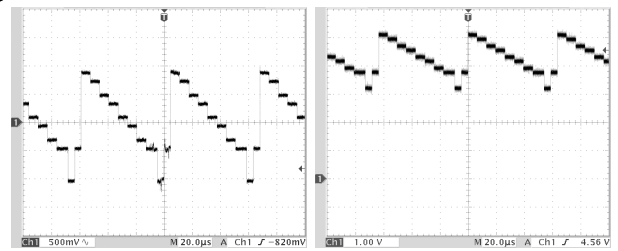
①9 IC8005 - pin 35



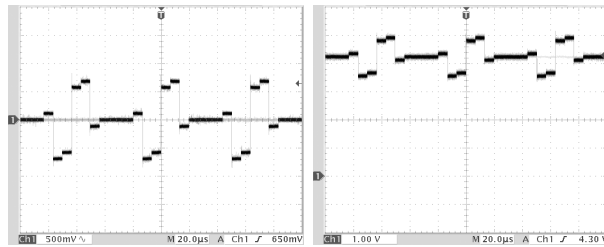
②0 IC8005 - pin 36



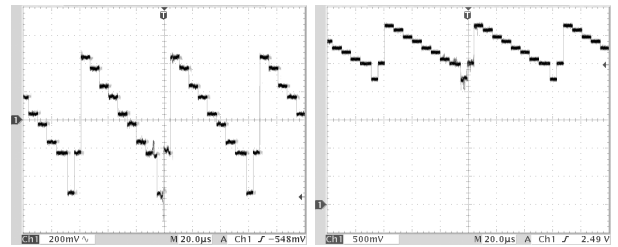
②1 IC8005 - pin 38



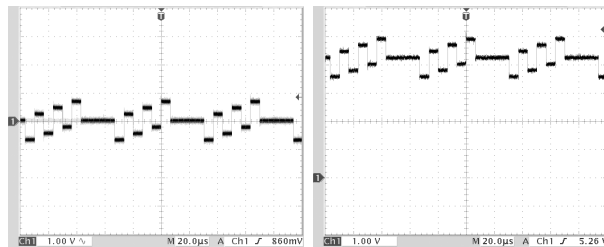
①6 IC8005 - pin 43



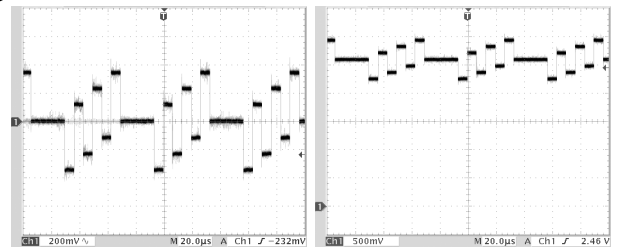
②2 IC6401 - pin 7



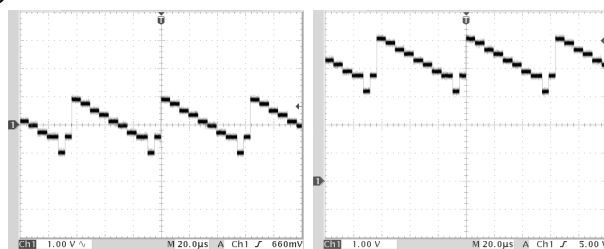
①7 IC8005 - pin 44



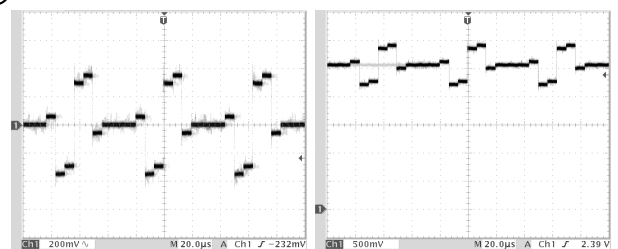
②3 IC6401 - pin 27



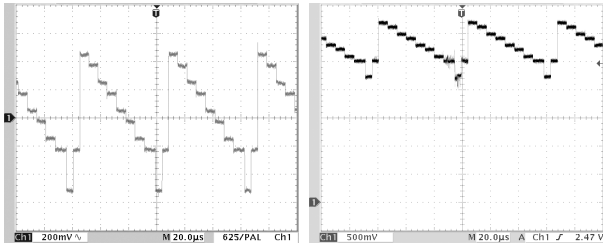
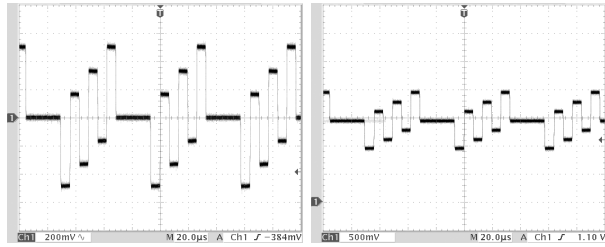
①8 IC8005 - pin 46



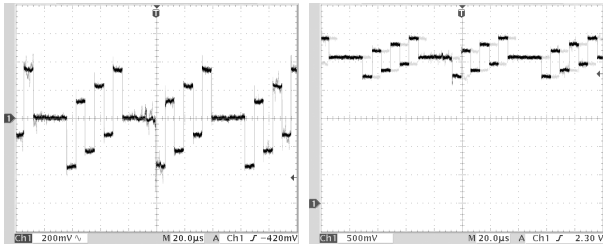
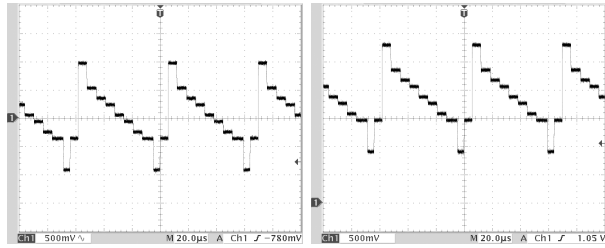
②4 IC6401 - pin 3



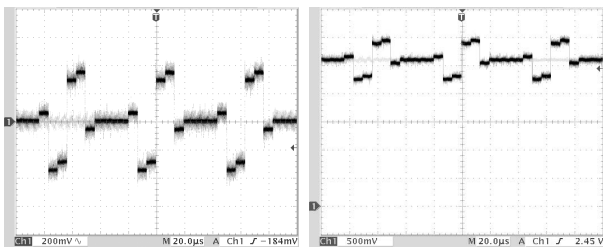
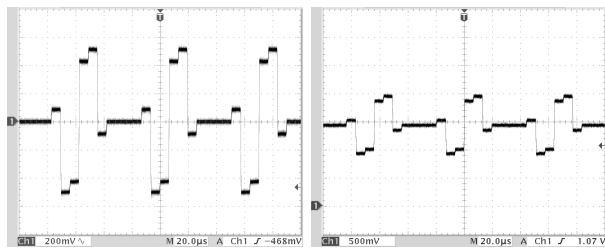
A

25 IC6601 - pin 7**31** TP6604

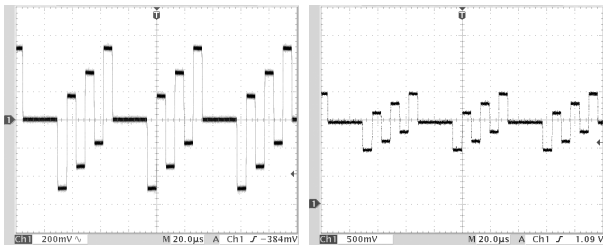
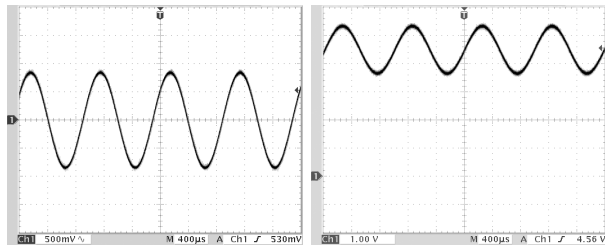
B

26 IC6601 - pin 27**32** TP6605

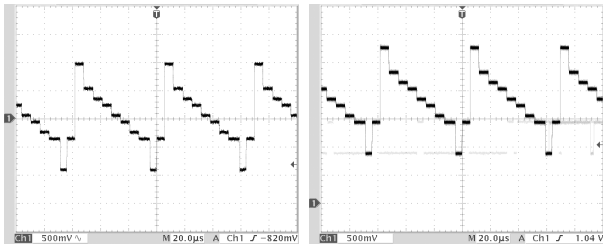
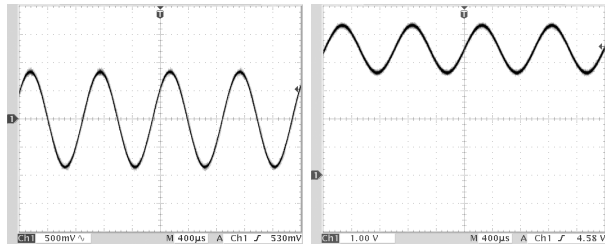
C

27 IC6601 - pin 3**33** TP6606

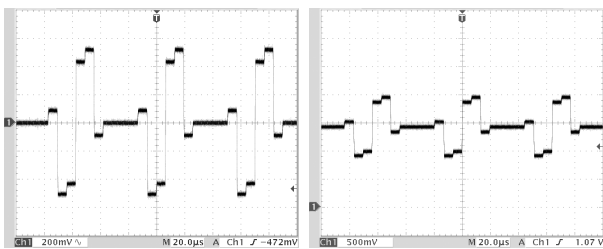
D

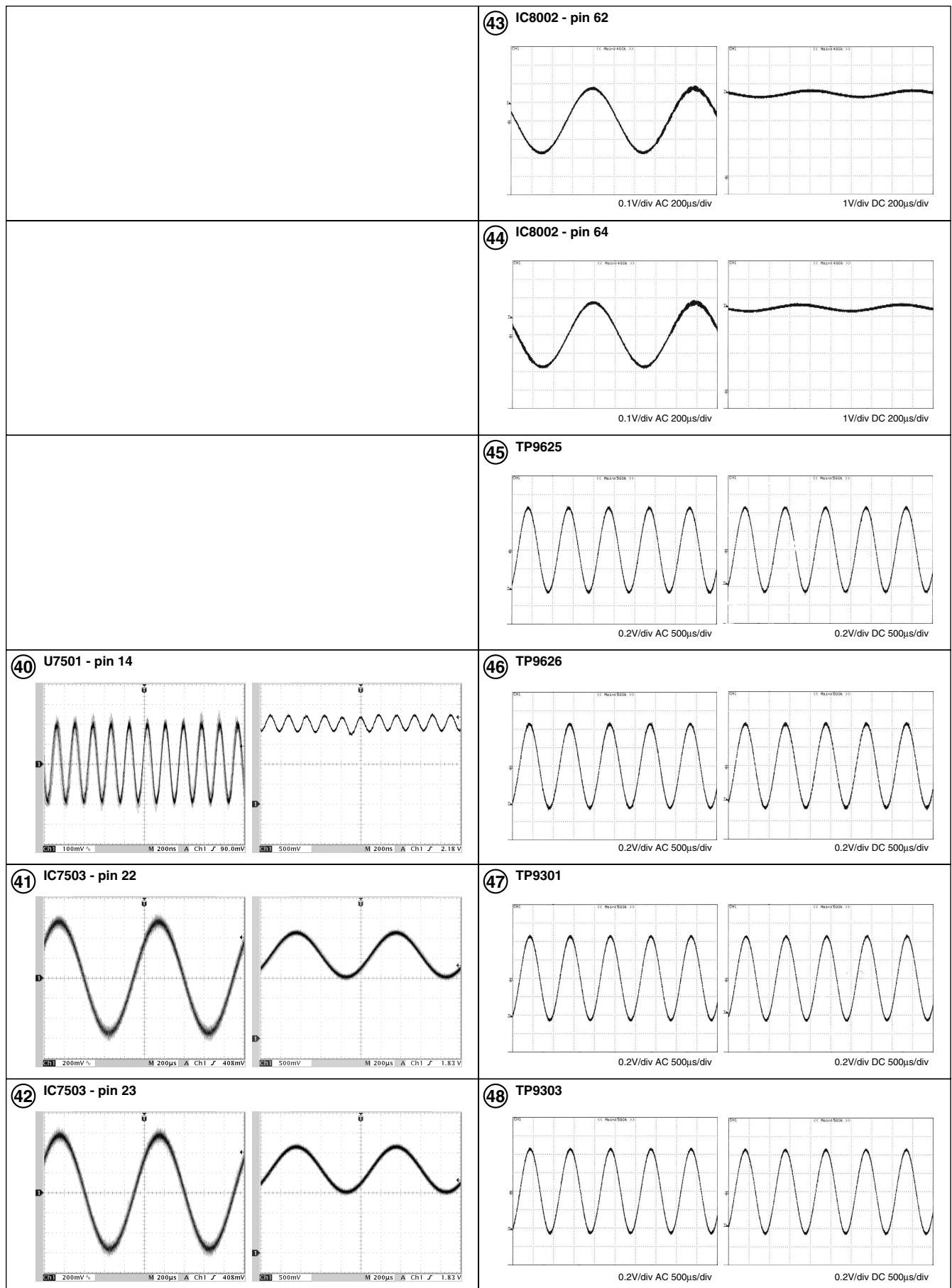
28 TP6402**34** IC8003 - pin 3

E

29 TP6403**35** IC8003 - pin 13

F

30 TP6404



7.1.2 DISASSEMBLY

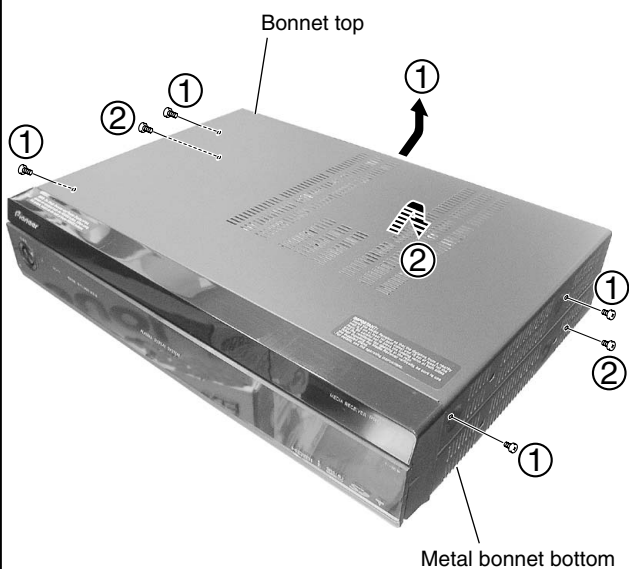
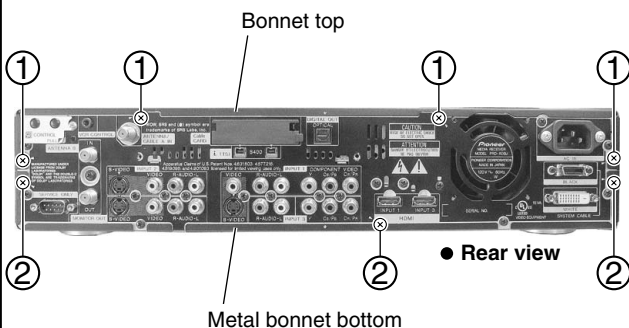
Note: Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

1 Bonnet top and metal bonnet bottom

- ① Remove the bonnet top by removing the eight screws.
- ② Remove the metal bonnet bottom by removing the five screws.

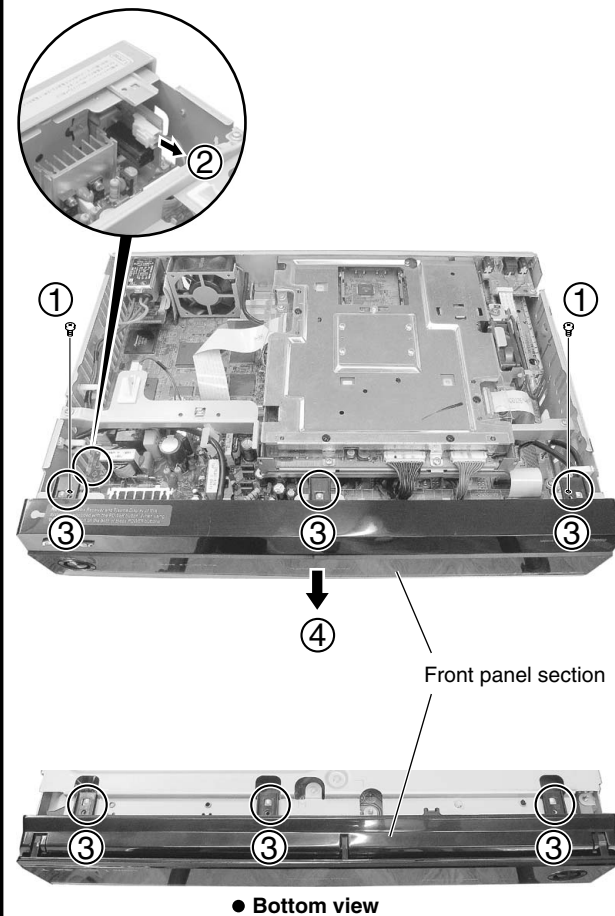
Caution :

Please remove it after pulling it in a rear direction because bonnet top and metal bonnet bottom are hard to reduce.



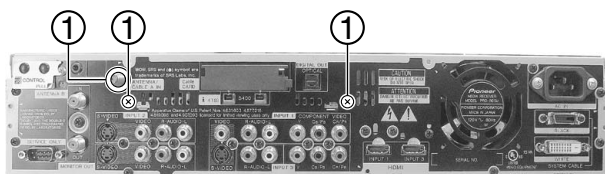
2 Front panel section

- ① Remove the two screws.
- ② Disconnect the one connector.
- ③ Unhook the six hooks.
- ④ Remove the front panel section.



3 TUNER BOARD Assy (U)

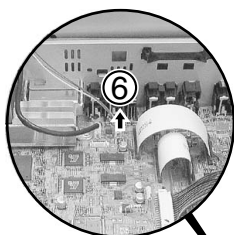
- ① Remove the one washer and two screws.



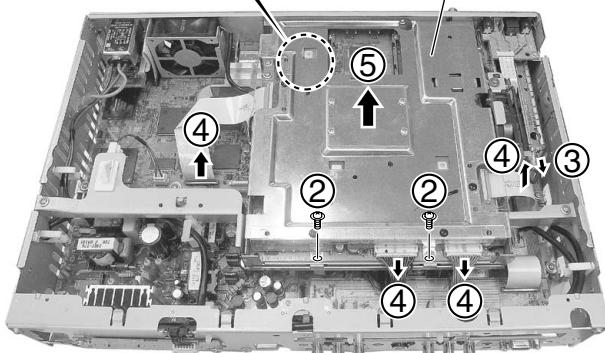
● Rear view



- ② Remove the two screws.
 ③ Disconnect the one plug cord.
 ④ Disconnect the two flexible cables and two connectors.
 ⑤ Remove the TUNER BOARD Assy (U).
 ⑥ Disconnect the one connector.

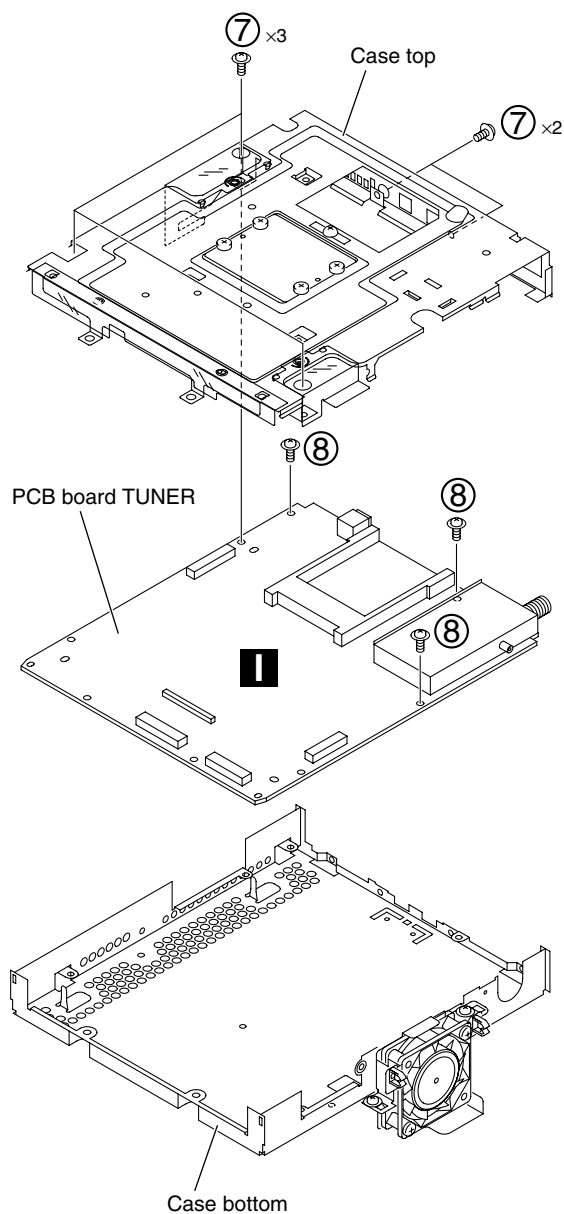


TUNER BOARD Assy (U)

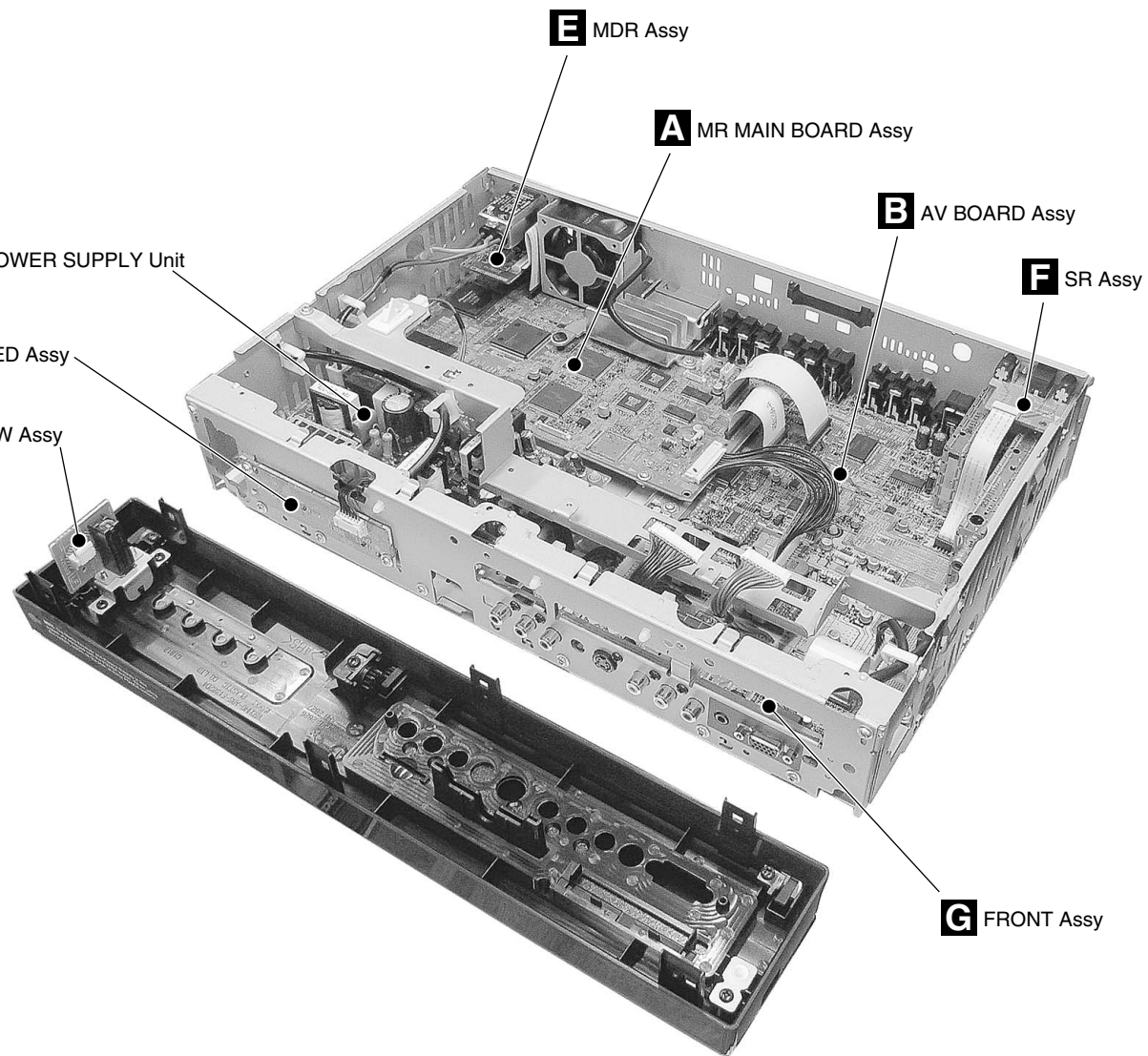


- ⑦ Remove the five screws.

- ⑧ Remove the three screws.



PCB Location

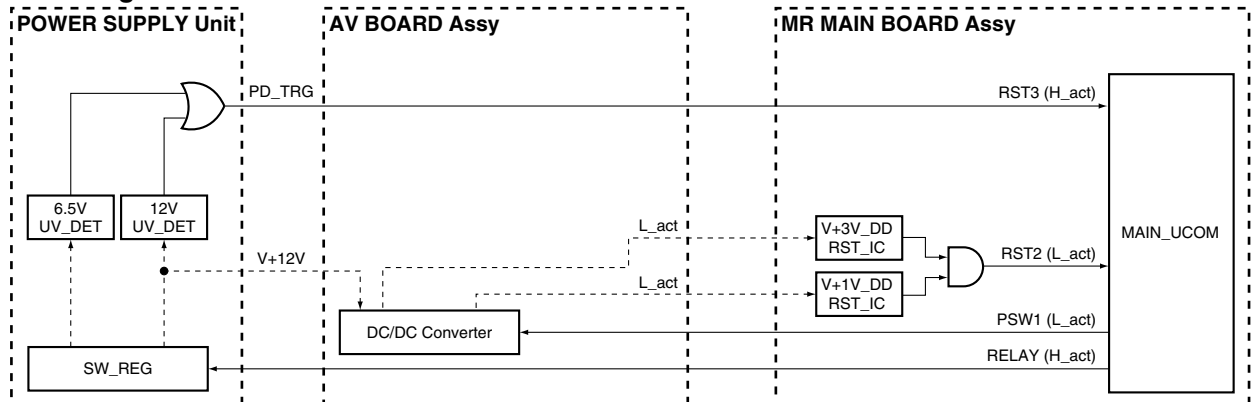


7.2 EXPLANATION

7.2.1 PROCESSING IN ABNORMALITY

Power supply and DC-DC converter

● Circuit diagram

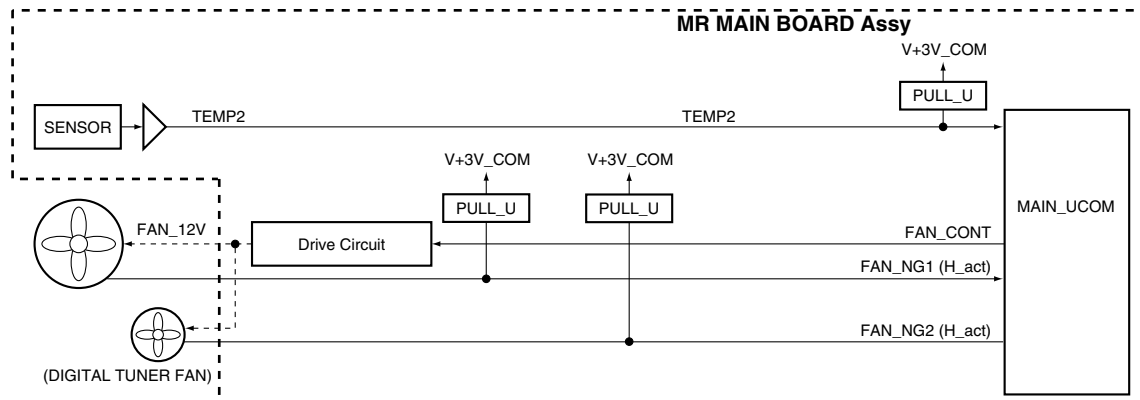


● Specifications for port monitoring

Port Name	SD/PD Indication	Assigned Pin	Active
PD_MAIN (PD_TRG)	MR_PWR	41	Power-down with H
RST2	ASIC power supply	98	Shutdown with L

Fan and temperature sensor

● Circuit diagram

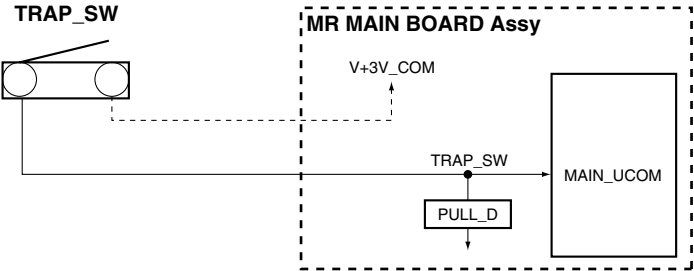


● Specifications for port monitoring

Port Name	SD/PD Indication	Assigned Pin	Active
FAN_NG 1	FAN	31	Shutdown with H
FAN_NG 2	FAN	32	Shutdown with H
TEMP2	Abnormally high temperature in the MR	50	Shutdown when the value exceeds the predetermined value

TRAP_SW

● Circuit diagram



● Specifications for port monitoring

Port Name	SD/PD Indication	Assigned Pin	Active
TRAP_SW	Modification tried	30	OFF with L

LED-lighting patterns

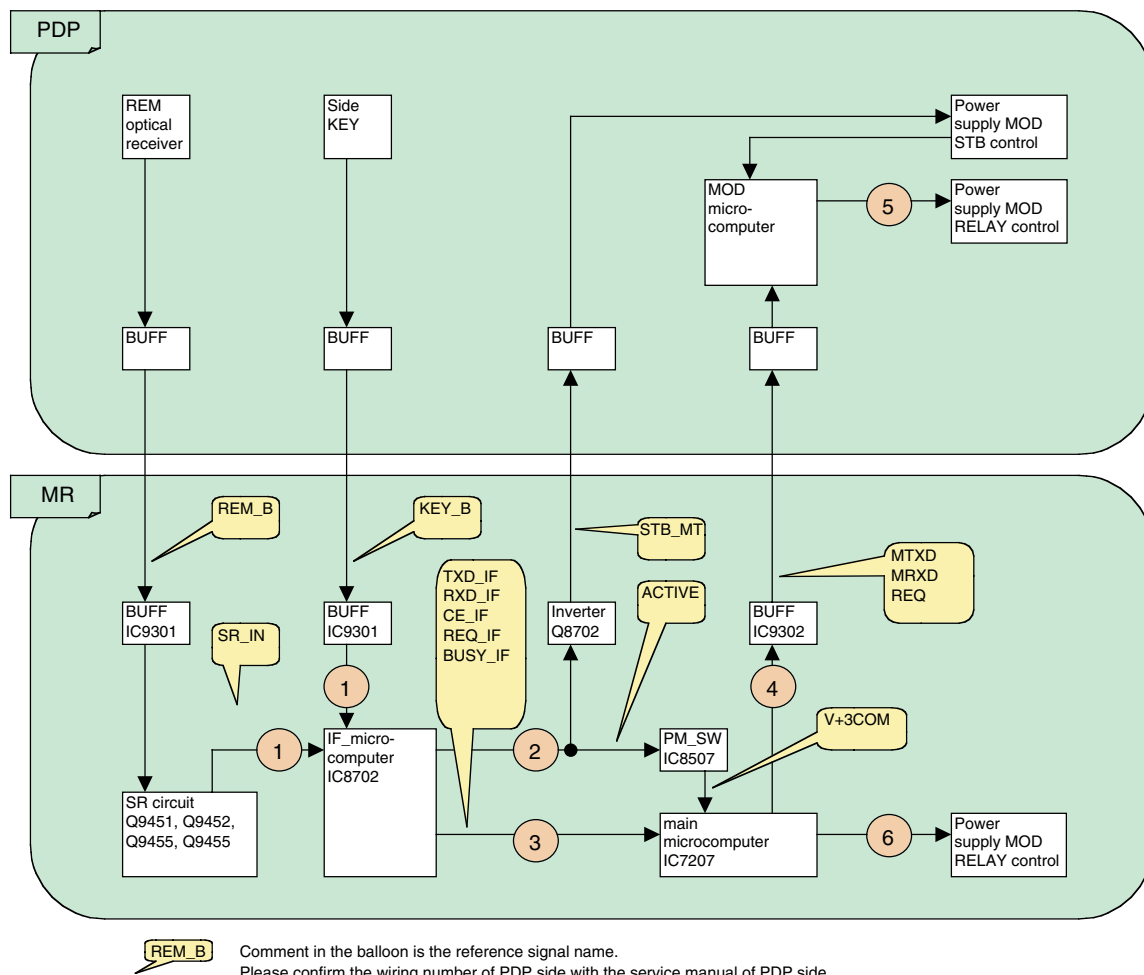
Status of the Unit	LED-lighting Pattern
Standby, power management	
Power on	
PDP's power not on	
System cable disconnected *	
Waiting for start of rewriting by the microcomputer	
Waiting for finish of rewriting by the microcomputer	
Shutdown (circuit protection)	
Power-down (circuit protection)	
TRAP switch operation	

* In this case, the red and green areas on the screen of the panel flash alternately.

Defective points assumed from the number of times of LED flashing

No. of times of LED flashing LEDs on the panel				Category * 1	Site detected as defective	Possible defective points (representative examples)	OSD when detected (warning message)
RED	GRN	RED	GRN				
	Green 1	Red			Panel drive IC	*2	None
	Green 2	Red			Module section IIC	*2	None
	Green 3	Red			Power decrease of DIGITAL-DC-DC	*2	None
	Green 4	Red			Panel having abnormally high temperature	*2	The power is shut down, because the internal temperature has risen. Check the temperature surrounding the PDP. (SD04)
	Green 5	Red			Short-circuiting of the speakers	*2	The power is shut down, because the protection circuit inside the unit is activated. Check if the speaker cables are short-circuited. (SD05)
Red			Green 6	SD	Module microcomputer	Disconnection of the system cable Defective module microcomputer or its peripheral circuits of the panel (Refer to the service manual of the PDP-434PU or PDP-504PU.) Defective main microcomputer (IC7207) Failure in communication (TXD_MD, REQ_MD, RXD_MD, REQ_MD) between the panel's module microcomputer and IC7207 (main microcomputer)	None
Red			Green 7		3-wire serial connection of the main section	Defective IC7004 or its peripheral circuits Failure in communication (TXD_IC, XD_IC2, CLK_IC2, IC2_CE, IC2_EMG) between IC7004 and IC7207 (main microcomputer) Defective IC7101 or its peripheral circuits Failure in communication (TXD_IC3, RXD_IC3, CLK_IC3, IC3_CE, IC3_REQ, IC3_BUSY) between IC7101 and IC7207 (main microcomputer)	None
Red			Green 8		IIC of the main section	Defective IC6107 (CD MAIN) or its peripheral circuits Defective IC6255 (CD SUB) or its peripheral circuits Defective IC6402 (AD MAIN) or its peripheral circuits Defective IC6602 (AD SUB) or its peripheral circuits Defective IC6881 (HDMI_2) or its peripheral circuits Defective IC6951 (BUS_SW) or its peripheral circuits Defective IC7401 (TX) or its peripheral circuits Defective U7501 (TU) or its peripheral circuits Defective U7502 (TU) or its peripheral circuits Defective IC8002 (AV_SW) or its peripheral circuits Defective IC8005 (RGB_SW) or its peripheral circuits Defective IC7205 (E2P) or its peripheral circuits Failure in communication (SCL_AV, SDA_AV, SCL_MAIN, SDA_MAIN, SCL_HDMI, SDA_HDMI, SCL_EP, SDA_EP) between one of the above devices and IC7207 (main microcomputer)	None
Red			Green 9		Main microcomputer	Defective IC7207 (main microcomputer) Defective flexible cable for communication between the MR MAIN BOARD Assy and the AV BOARD Assy Failure in communication (TXD_IF, RXD_IF, CLK_IF, IF_CE, IF_BUSY) between IC7207 (main microcomputer) and IC8702	None
Red			Green 10		Fan	Failure in the fan motor, or the fan stopped because of dust attached to the fan	None
Red			Green 11		MR or unit having abnormally high temperature	The Media Receiver or the unit being used at high temperature	The power is shut down, because the internal temperature has risen. Check the temperature surrounding the Media Receiver. (SD11)
Red			Green 12		Digital tuner (U.S. model)	Defective DTV tuner Failure in communication (TXD_DT, RXD_DT) between the digital tuner and IC8202 (main microcomputer)	None
Red			Green 13		ASIC power supply (DC-DC)	Defective U8502 (DD_CON) or short-circuiting elsewhere	None
Red			Green 14	PD	IF_E2P	Defective IC8705 (IF_E2P) or its peripheral circuits	None
Red	Red 1				MR PWR	Defective Power Supply Assy of the Media Receiver, or power short-circuiting in another Assy	None
Red 2	Red				POWER	*2	None
Red 3	Red				SCAN	*2	None
Red 4	Red				SCN-5V	*2	None
Red 5	Red				Y-DRIVE	*2	None
Red 6	Red				Y-DCDC	*2	None
Red 7	Red				Y-SUS	*2	None
Red 8	Red				ADRS	*2	None
Red 9	Red				X-DRIVE	*2	None
Red 10	Red				X-DCDC	*2	None
Red 11	Red				X-SUS	*2	None
Red 12	Red				D-DCDC	*2	None
Red 13	Red			IC4	*2	None	

R05 series Power-on sequence



- ① : Remote controller signal (or, KEY signal) is input into IF microcomputer.
- ② : IF microcomputer supplies the power supply to Main microcomputer and MOD microcomputer.
- ③ : IF microcomputer communicates the operation information of Remote controller (or KEY) to Main microcomputer.
- ④ : Main microcomputer sends in the activation order to MOD microcomputer.
- ⑤ : MOD microcomputer controls the relay of PDP power supply MOD, and activate the power supply of PDP side.
- ⑥ : Main microcomputer controls the relay of MR power supply MOD, and activate the power supply of MR side.

7.3 PARTS
7.3.1 IC

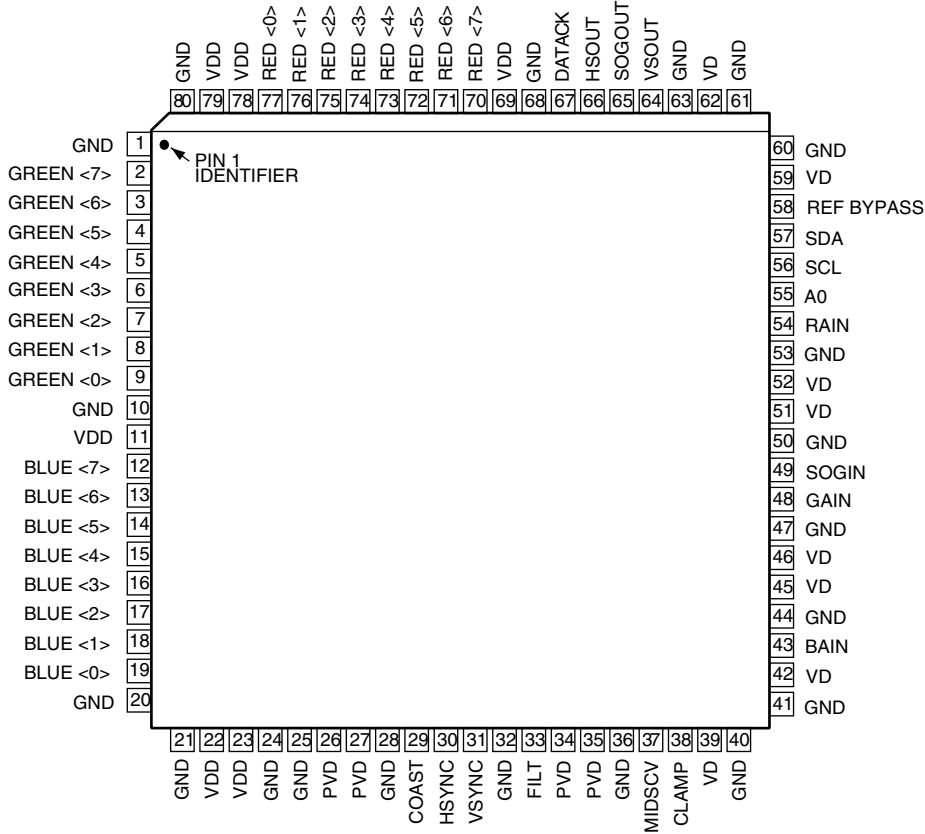
¥ The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

List of IC

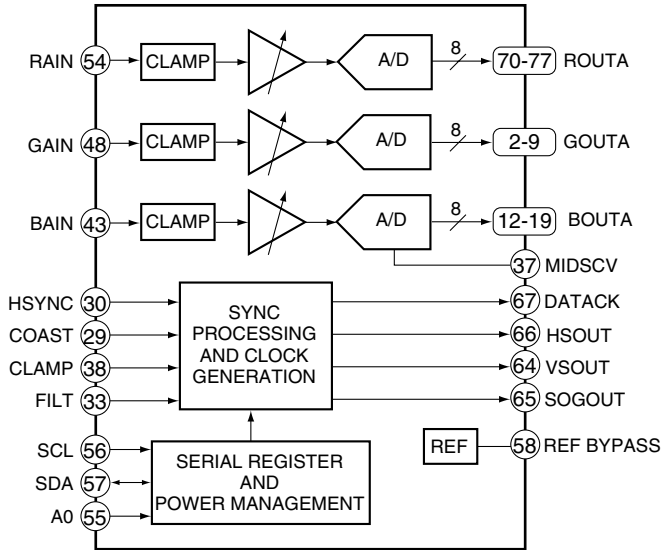
AD80058-K, SM5301BS, BA7078AF, SII9993CTG100, HY57V643220CT-7 (or K4S643232H-TC60-K),
MBM29PL3200BE70PFV, SII170BCLG64, HY57V161610DTC-8 (or K4S161622H-TC60-K), TA1287FG, AXY1088,
AXY1089, CXA2069Q

AD80058-K (MR MAIN BOARD ASSY : IC6402, IC6602)
• 110 MSPS Analog Interface

Pin Arrangement (Top view)



Block Diagram



● Pin Function

No.	Pin Name	I/O	Pin Function
1	GND	–	Ground
2	GREEN 7	O	Converter Green output (MSB)
3	GREEN 6	O	Converter Green output
4	GREEN 5	O	Converter Green output
5	GREEN 4	O	Converter Green output
6	GREEN 3	O	Converter Green output
7	GREEN 2	O	Converter Green output
8	GREEN 1	O	Converter Green output
9	GREEN 0	O	Converter Green output
10	GND	–	Ground
11	VDD	–	Power supply (3.3V)
12	BLUE 7	O	Converter Blue output (MSB)
13	BLUE 6	O	Converter Blue output
14	BLUE 5	O	Converter Blue output
15	BLUE 4	O	Converter Blue output
16	BLUE 3	O	Converter Blue output
17	BLUE 2	O	Converter Blue output
18	BLUE 1	O	Converter Blue output
19	BLUE 0	O	Converter Blue output
20	GND	–	Ground
21	GND	–	Ground
22	VDD	–	Power supply (3.3V)
23	VDD	–	Power supply (3.3V)
24	GND	–	Ground
25	GND	–	Ground
26	PVD	–	PLL power supply (3.3V)
27	PVD	–	PLL power supply (3.3V)
28	GND	–	Ground
29	COAST	I	PLL COAST signal input
30	HSYNC	I	Horizontal sync. input
31	VSYNC	I	Vertical sync. input
32	GND	–	Ground
33	FILT	–	External filter connection pin for built-in PLL
34	PVD	–	PLL power supply (3.3V)
35	PVD	–	PLL power supply (3.3V)
36	GND	–	Ground
37	MIDSCV	–	Internal middle scale voltage bias
38	CLAMP	I	Clamp input (External clamp signal)
39	VD	–	Analog power supply (3.3V)
40	GND	–	Ground
41	GND	–	Ground
42	VD	–	Analog power supply (3.3V)
43	BAIN	I	Analog input for converter B
44	GND	–	Ground
45	VD	–	Analog power supply (3.3V)

A

No.	Pin Name	I/O	Pin Function
46	VD	–	Analog power supply (3.3V)
47	GND	–	Ground
48	GAIN	I	Analog input for converter G
49	SOGIN	I	Input for Sync-on Green
50	GND	–	Ground
51	VD	–	Analog power supply (3.3V)
52	VD	–	Analog power supply (3.3V)
53	GND	–	Ground
54	RAIN	I	Analog input for converter R
55	A0	I	Address input 1 of serial port
56	SCL	I	Data clock (max. 100kHz) of serial port
57	SDA	I/O	Data input/output of serial port
58	REF BYPASS	–	Internal reference bypass
59	VD	–	Analog power supply (3.3V)
60	GND	–	Ground
61	GND	–	Ground
62	VD	–	Analog power supply (3.3V)
63	GND	–	Ground
64	VSOUT	O	VSYNC output (phasing with DATACLK)
65	SOGOUT	O	Sync-on-Green slicer output
66	HSOUT	O	HSYNC output (phasing with DATACLK)
67	DATACLK	O	Data input/output clock
68	GND	–	Ground
69	VDD	–	Power supply (3.3V)
70	RED 7	O	Converter Red output (MSB)
71	RED 6	O	Converter Red output
72	RED 5	O	Converter Red output
73	RED 4	O	Converter Red output
74	RED 3	O	Converter Red output
75	RED 2	O	Converter Red output
76	RED 1	O	Converter Red output
77	RED 0	O	Converter Red output
78	VDD	–	Power supply (3.3V)
79	VDD	–	Power supply (3.3V)
80	GND	–	Ground

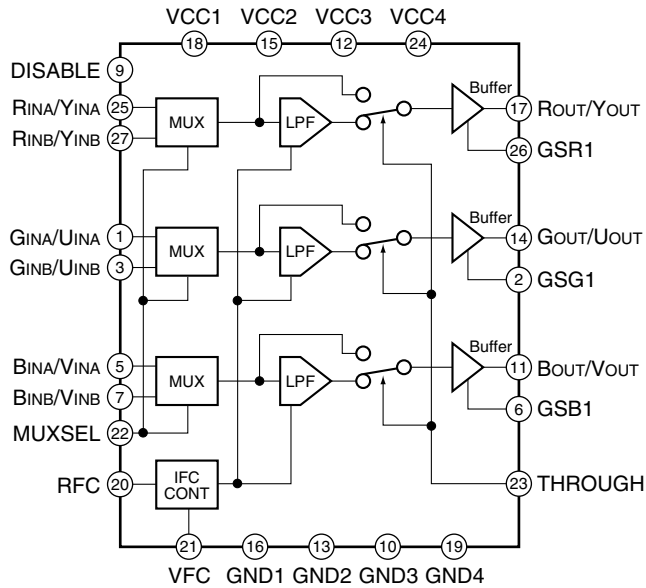
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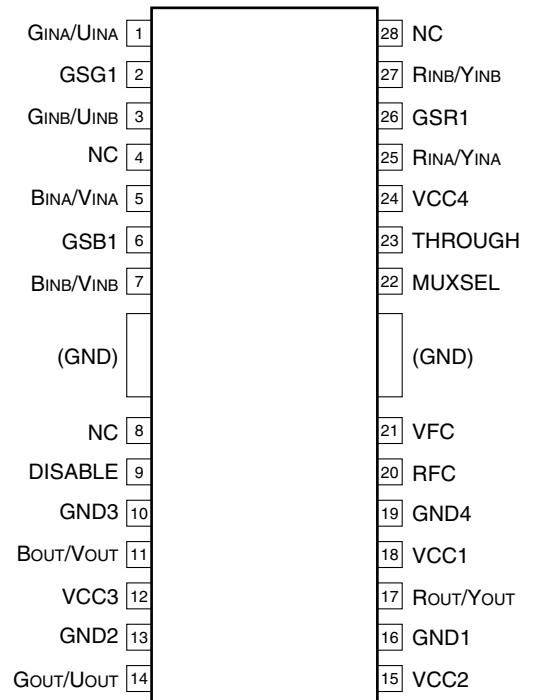
SM5301BS (MR MAIN BOARD ASSY : IC6401, IC6601)

• Video Filter

Block Diagram



Pin Arrangement (Top view)



● Pin Function

A

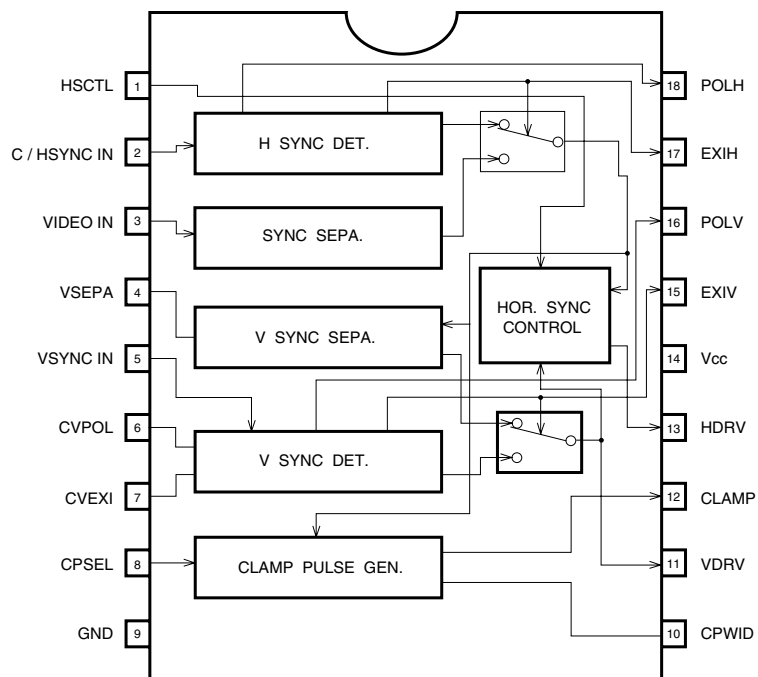
No.	Pin Name	I/O	Pin Function
1	GINA/UINA	I	Analog GINA or UINA signal input. Sync signal is input on SYNCIN pin.
2	GSG1	I	GOUT/UOUT output buffer gain set input
3	GINB/UINB	I	Analog GINB or UINB signal input. Sync signal is input on SYNCIN pin.
4	(NC)	–	No connection
5	BINA/VINA	I	Analog BINA or VINA signal input. Sync signal is input on SYNCIN pin.
6	GSB1	I	BOUT/VOUT output buffer gain set input
7	BINB/VINB	I	Analog BINB or VINB signal input. Sync signal is input on SYNCIN pin.
8	(NC)	–	No connection
9	DISABLE	I	Power save function. Built-in pull-down resistor. L : Enable H : Disable (Output pins: ROUT/YOUT, GOUT/UOUT, and BOUT/VOUT are high impedance.)
10	GND3	–	Analog ground
11	BOUT/VOUT	O	B/V signal output
12	VCC3	–	Analog 5V supply
13	GND2	–	Analog ground
14	GOUT/UOUT	O	G/U signal output
15	VCC2	–	Analog 5V supply
16	GND1	–	Analog ground
17	ROUT/YOUT	O	R/Y signal output
18	VCC1	–	Analog 5V supply
19	GND4	–	Analog ground
20	RFC	–	LPF (lowpass filter) cutoff frequency setting resistor connection
21	VFC	I	LPF (lowpass filter) cutoff frequency setting voltage input
22	MUXSEL	I	Input select signal. Built-in pull-down resistor. L : XINA pin select H : XINB pin select
23	THROUGH	I	Filter through Built-in pull-down resistor. L : Filter function H : Filter through (buffer only)
24	VCC4	–	Analog 5V supply
25	RINA/YINA	I	Analog RINA or YINA signal input. Sync signal is input on SYNCIN pin.
26	GSR1	I	ROUT/YOUT output buffer gain set input
27	RINB/YINB	I	Analog RINB or YINB signal input. Sync signal is input on SYNCIN pin.
28	(NC)	–	No connection

F

■ BA7078AF (MR MAIN BOARD ASSY : IC6404, IC6604)

• Multi Sync Separation IC

● Block Diagram



● Pin Function

A

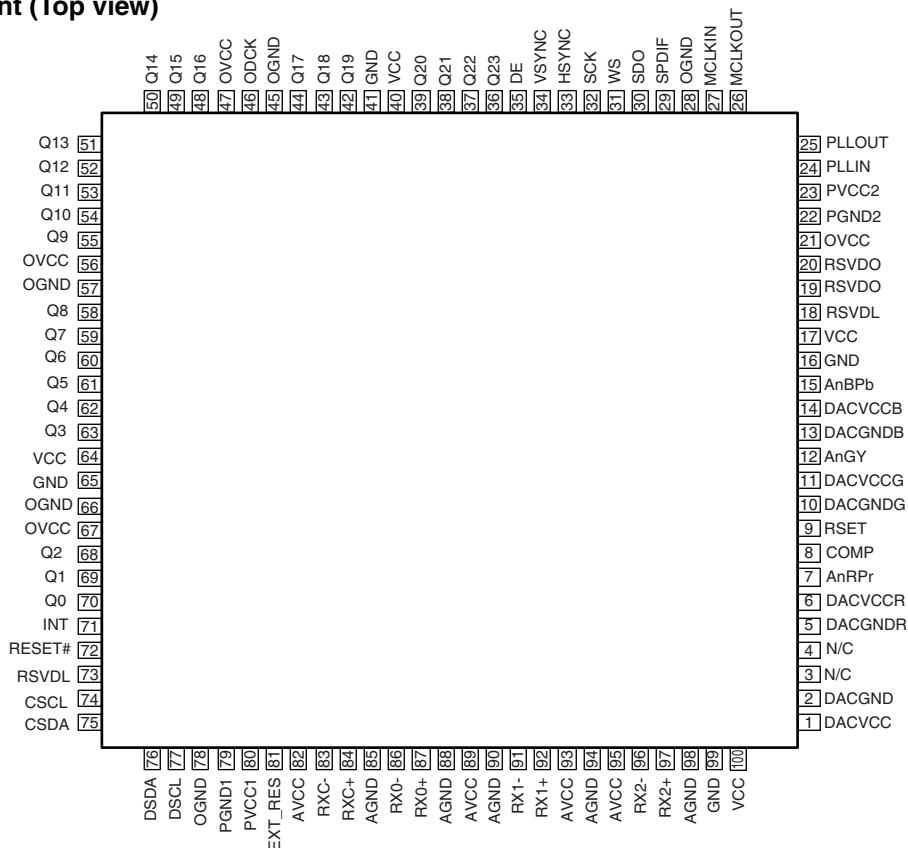
No.	Pin Name	Pin Function
1	HSCTL	HDRV output Used to select whether to output the VDRV section of the HDRV output signal. High : VDRV section of HDRV is output Low : VDRV section of HDRV is not output
2	C/HSYNC IN	Composite sync / H SYNC input Input either the composite synchronization signal or the horizontal synchronization signal. Input is clamped, and is initiated by capacitor coupling.
3	VIDEO IN	SYNC ON VIDEO input Inputs the SYNC ON VIDEO signal(green). Input is sink chip clamped. Input is initiated by capacitor coupling.
4	VSEPA	f-V conversion Converts the horizontal synchronization signal frequency into a voltage. The voltage generated is proportional to the frequency of the horizontal synchronization signal. Attach a 0.56 μ F capacitor between the ground pins.
5	VSYNC IN	V SYNC input Inputs the vertical synchronization signal.
6	CVPOL	Vertical polarity integration Integrates the vertical synchronization signal polarity detection circuit. Attach a 1.5 μ F capacitor between this pin and the ground.
7	CVEXI	Vertical existence integration Integrates the vertical synchronization signal existence detection circuit. Attach a 1 μ F capacitor between this pin and the ground.
8	CPSEL	Setting the clamp position Used to set the clamp pulse generation position to either the front or back edge of HSYNC High : The front edge is the generation position Open : Composite / H SYNC IN : The front edge is the generation position VIDEO IN : The back edge is the generation position Low : The back edge is the generation position
9	GND	Ground
10	CPWID	Setting the clamp pulse width Sets the clamp pulse width according to the attached time constant. Attach a resistor between this pin and VCC and, a capacitor between this pin and GND. When R = 3.9k Ω and C = 100pF, pulse width is approximately 400 ns. Set the resistor to register an abnormality at 1k Ω .
11	VDRV	VDRV output Outputs the vertical synchronization signal. The output signal has positive polarity.
12	CLAMP	Clamp output Outputs the clamp pulse generated from the vertical synchronization signal. The output signal has a positive polarity.
13	HDRV	HDRV output Outputs the clamp pulse generated from the horizontal synchronization signal. The output signal has positive polarity.
14	Vcc	Power supply
15	EXIV	Vertical existence output Indicates whether the vertical synchronization signal exists.
16	POLV	Vertical polarity output Indicates the polarity of the vertical synchronization signal.
17	EXIH	Horizontal existence output Indicates whether the horizontal synchronization signal exists.
18	POLH	Horizontal polarity output Indicates the polarity of the horizontal synchronization signal.

F

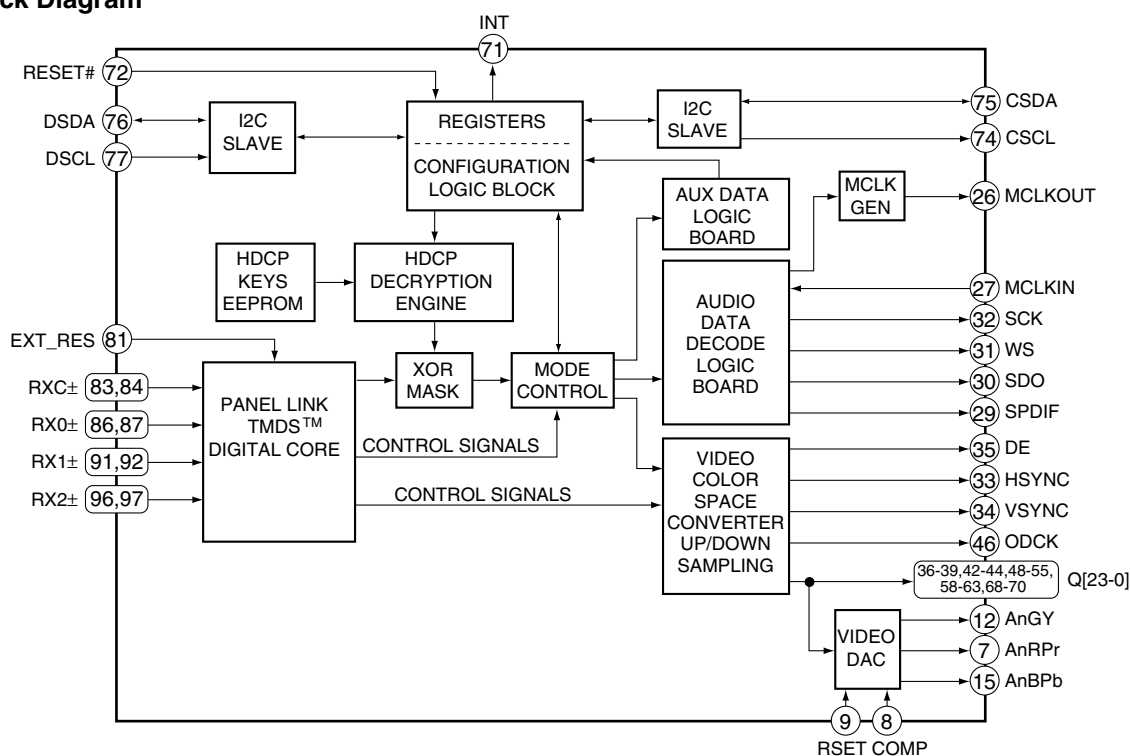
■ SII9993CTG100 (MR MAIN BOARD ASSY : IC6881, IC6801)

- HDCP Panel Link Receiver

● **Pin Arrangement (Top view)**



- **Block Diagram**



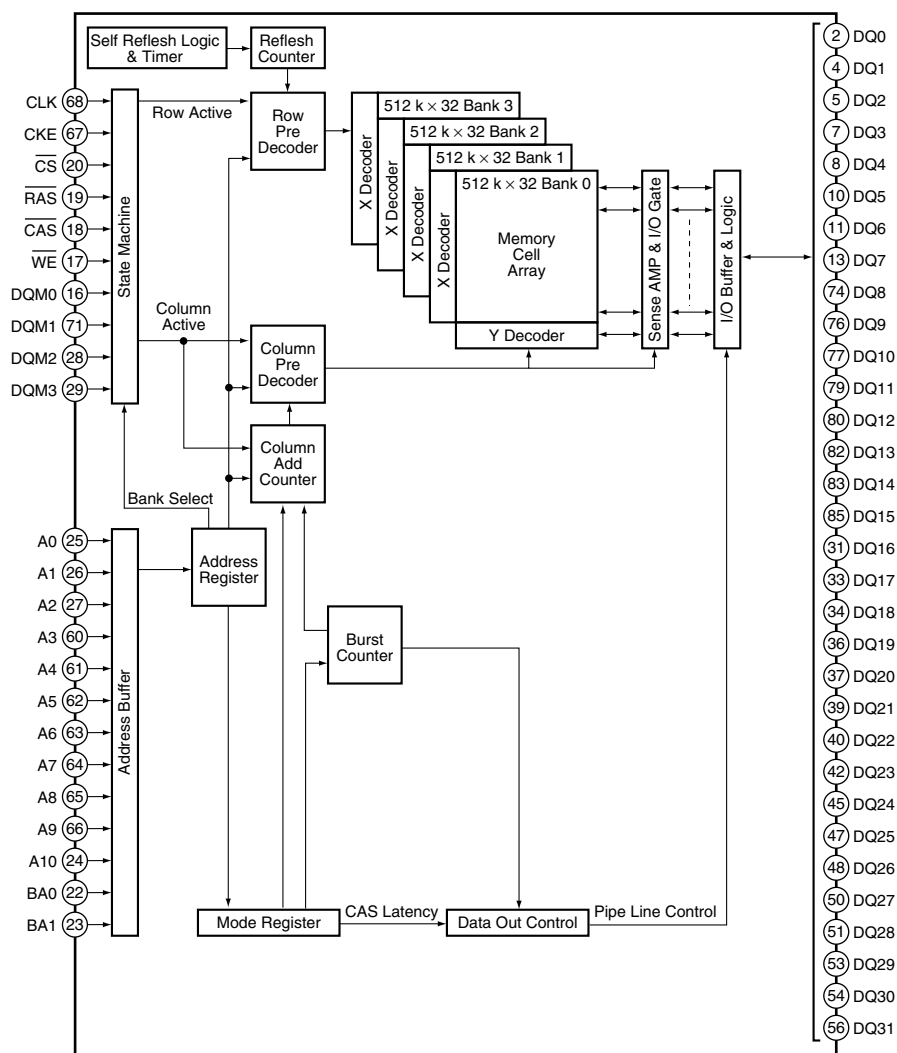
● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	DACVCC	–	DAC power supply (3.3V)	51	Q13	O	24-bit output pixel data bus
2	DACGND	–	DAC ground	52	Q12	O	24-bit output pixel data bus
3	N/C	–	No connection	53	Q11	O	24-bit output pixel data bus
4	N/C	–	No connection	54	Q10	O	24-bit output pixel data bus
5	DACGNDR	–	DAC Red ground	55	Q9	O	24-bit output pixel data bus
6	DACVCCR	–	DAC Red power supply (3.3V)	56	OVCC	–	Output bus power supply (3.3V)
7	AnRPr	O	Red, Pr output of analog video	57	OGND	–	Output bus ground
8	COMP	I	For reference amp. correction of DAC inside	58	Q8	O	24-bit output pixel data bus
9	RSET	I	Full scale adjustment resistor input	59	Q7	O	24-bit output pixel data bus
10	DACGNDG	–	DAC Green ground	60	Q6	O	24-bit output pixel data bus
11	DACVCCG	–	DAC Green power supply (3.3V)	61	Q5	O	24-bit output pixel data bus
12	AnGY	O	Green, Y output of analog video	62	Q4	O	24-bit output pixel data bus
13	DACGNDB	–	DAC Blue ground	63	Q3	O	24-bit output pixel data bus
14	DACVCCB	–	DAC Blue power supply (3.3V)	64	VCC	–	Digital power supply (3.3V)
15	AnBPb	O	Blue, Pb output of analog video	65	GND	–	Digital ground
16	GND	–	Digital ground	66	OGND	–	Output bus ground
17	VCC	–	Digital power supply (3.3V)	67	OVCC	–	Output bus power supply (3.3V)
18	RSVDL	I	Reserved Fixed to low.	68	Q2	O	24-bit output pixel data bus
19	RSVDD	O	Reserved No connection	69	Q1	O	24-bit output pixel data bus
20	RSVDD	O	Reserved No connection	70	Q0	O	24-bit output pixel data bus
21	OVCC	–	Output bus power supply (3.3V)	71	INT	O	Interruption output
22	PGND2	–	Audio PLL ground	72	RESET#	I	Reset Activ low.
23	PVCC2	–	Audio PLL power supply (3.3V)	73	RSVDL	I	Reserved Fixed to low.
24	PLLIN	I/O	PLL filter input	74	CSCL	I	Configuration I2C clock
25	PLLOUT	I/O	PLL filter output	75	CSDA	I/O	Configuration I2C data
26	MCCLKOUT	O	Audio master clock output	76	DSDA	I/O	DDC I2C data
27	MCCLKIN	I	Reference audio master clock input	77	DSCL	I	DDC I2C clock
28	OGND	–	Output bus ground	78	OGND	–	Output bus ground
29	SPDIF	O	SPDIF audio output	79	PGND1	–	PLL ground
30	SDO	O	I2S serial data output	80	PVCC1	–	PLL power supply (3.3V)
31	WS	O	I2S word selecting output	81	EXT_RES	I	Input impedance adjustment
32	SCK	O	I2S serial clock output	82	AVCC	–	Analog power supply (3.3V)
33	HSYNC	O	Horizontal sync. control signal output	83	RXC-	I	TMDS data input
34	VSYSNC	O	Vertical sync. control signal output	84	RXC+	I	TMDS data input
35	DE	O	Data enable	85	AGND	–	Analog ground
36	Q23	O	24-bit output pixel data bus	86	RX0-	I	TMDS data input
37	Q22	O	24-bit output pixel data bus	87	RX0+	I	TMDS data input
38	Q21	O	24-bit output pixel data bus	88	AGND	–	Analog ground
39	Q20	O	24-bit output pixel data bus	89	AVCC	–	Analog power supply (3.3V)
40	VCC	–	Digital power supply (3.3V)	90	AGND	–	Analog ground
41	GND	–	Digital ground	91	RX1-	I	TMDS data input
42	Q19	O	24-bit output pixel data bus	92	RX1+	I	TMDS data input
43	Q18	O	24-bit output pixel data bus	93	AVCC	–	Analog power supply (3.3V)
44	Q17	O	24-bit output pixel data bus	94	AGND	–	Analog ground
45	OGND	–	Output bus ground	95	AVCC	–	Analog power supply (3.3V)
46	ODCK	O	Data clock output	96	RX2-	I	TMDS data input
47	OVCC	–	Output bus power supply (3.3V)	97	RX2+	I	TMDS data input
48	Q16	O	24-bit output pixel data bus	98	AGND	–	Analog ground
49	Q15	O	24-bit output pixel data bus	99	GND	–	Digital ground
50	Q14	O	24-bit output pixel data bus	100	VCC	–	Digital power supply (3.3V)

■ HY57V643220CT-7 (MR MAIN BOARD ASSY : IC7001, IC7002) (or K4S643232H-TC60-K)

• Synchronous DRAM

● Block Diagram



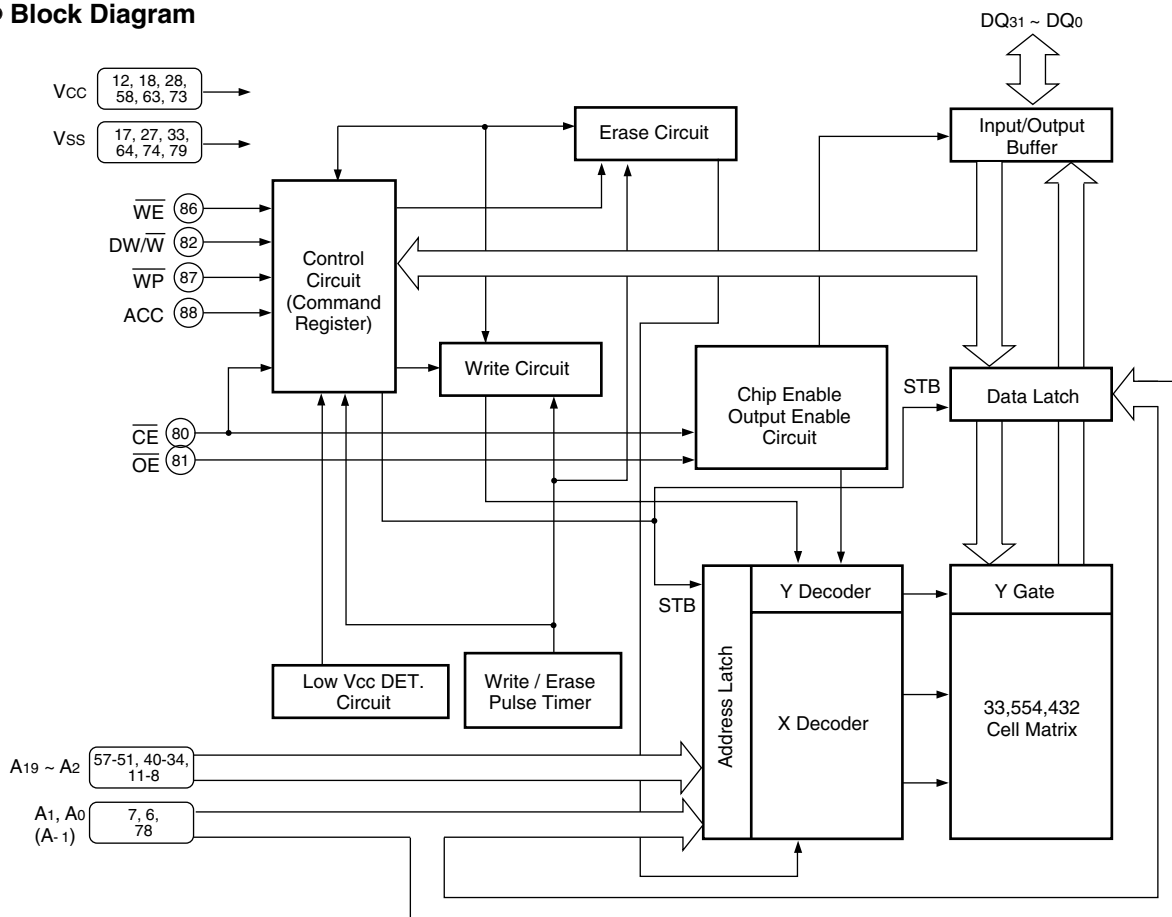
● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	VDD	–	Power supply	44	VSS	–	Ground
2	DQ0	I/O	Data input/output	45	DQ24	I/O	Data input/output
3	VDDQ	–	Power supply for output buffer	46	VSSQ	–	Ground for output buffer
4	DQ1	I/O	Data input/output	47	DQ25	I/O	Data input/output
5	DQ2	I/O	Data input/output	48	DQ26	I/O	Data input/output
6	VSSQ	–	Ground for output buffer	49	VDDQ	–	Power supply for output buffer
7	DQ3	I/O	Data input/output	50	DQ27	I/O	Data input/output
8	DQ4	I/O	Data input/output	51	DQ28	I/O	Data input/output
9	VDDQ	–	Power supply for output buffer	52	VSSQ	–	Ground for output buffer
10	DQ5	I/O	Data input/output	53	DQ29	I/O	Data input/output
11	DQ6	I/O	Data input/output	54	DQ30	I/O	Data input/output
12	VSSQ	–	Ground for output buffer	55	VDDQ	–	Power supply for output buffer
13	DQ7	I/O	Data input/output	56	DQ31	I/O	Data input/output
14	NC	–	No connection	57	NC	–	No connection
15	VDD	–	Power supply	58	VSS	–	Ground
16	DQM0	I	Data input/output mask	59	DQM3	I	Data input/output mask
17	/WE	I	Write enable	60	A3	I	Address input
18	/CAS	I	Column address strobe	61	A4	I	Address input
19	/RAS	I	Row address strobe	62	A5	I	Address input
20	/CS	I	Chip select input	63	A6	I	Address input
21	NC	–	No connection	64	A7	I	Address input
22	BA0	I	Bank address input	65	A8	I	Address input
23	BA1	I	Bank address input	66	A9	I	Address input
24	A10/AP	I	Address input	67	CKE	I	Clock enable
25	A0	I	Address input	68	CLK	I	System clock input
26	A1	I	Address input	69	NC	–	No connection
27	A2	I	Address input	70	NC	–	No connection
28	DQM2	I	Data input/output mask	71	DQM1	I	Data input/output mask
29	VDD	–	Power supply	72	VSS	–	Ground
30	NC	–	No connection	73	NC	–	No connection
31	DQ16	I/O	Data input/output	74	DQ8	I/O	Data input/output
32	VSSQ	–	Ground for output buffer	75	VDDQ	–	Power supply for output buffer
33	DQ17	I/O	Data input/output	76	DQ9	I/O	Data input/output
34	DQ18	I/O	Data input/output	77	DQ10	I/O	Data input/output
35	VDDQ	–	Power supply for output buffer	78	VSSQ	–	Ground for output buffer
36	DQ19	I/O	Data input/output	79	DQ11	I/O	Data input/output
37	DQ20	I/O	Data input/output	80	DQ12	I/O	Data input/output
38	VSSQ	–	Ground for output buffer	81	VDDQ	–	Power supply for output buffer
39	DQ21	I/O	Data input/output	82	DQ13	I/O	Data input/output
40	DQ22	I/O	Data input/output	83	DQ14	I/O	Data input/output
41	VDDQ	–	Power supply for output buffer	84	VSSQ	–	Ground for output buffer
42	DQ23	I/O	Data input/output	85	DQ15	I/O	Data input/output
43	VDD	–	Power supply	86	VSS	–	Ground

■ MBM29PL3200BE70PFV (MR MAIN BOARD ASSY : IC7152)

• Page Mode Flash Memory

● Block Diagram



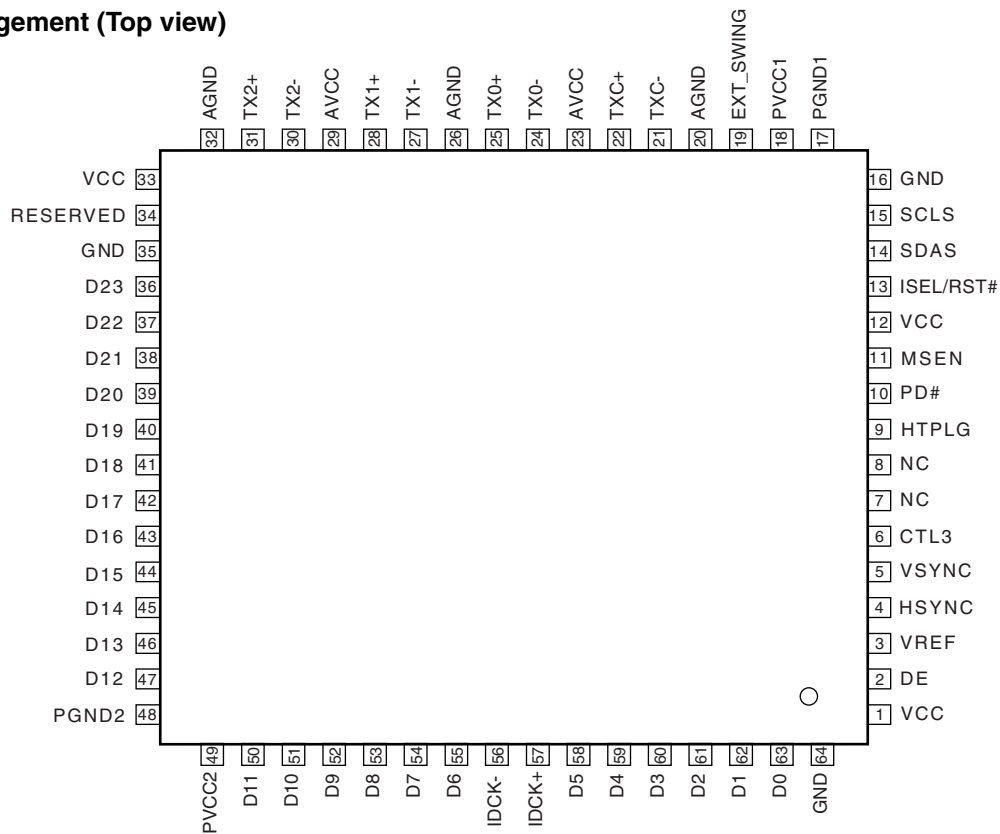
● Pin Function

No.	Pin Name	I/O	Pin Function
57-51, 40-34, 11-6, 78	A19 - A0, A-1	I	Address input
78-75, 72-65, 62-59, 32-19, 26-19, 16-13	DQ31 - DQ0	I/O	Data input/output
80	CE	I	Chip enable
81	OE	I	Output enable
86	WE	I	Write enable
82	DW/W	I	16 bit, 32 bit mode switch
87	WP	I	Write protect
88	ACC	I	Acceleration
17, 27, 33, 64, 74, 79	Vss	-	Ground
12, 18, 28, 58, 63, 73	Vcc	-	Power supply
1-5, 41-50, 83-85, 89, 90	N.C.	-	No connection

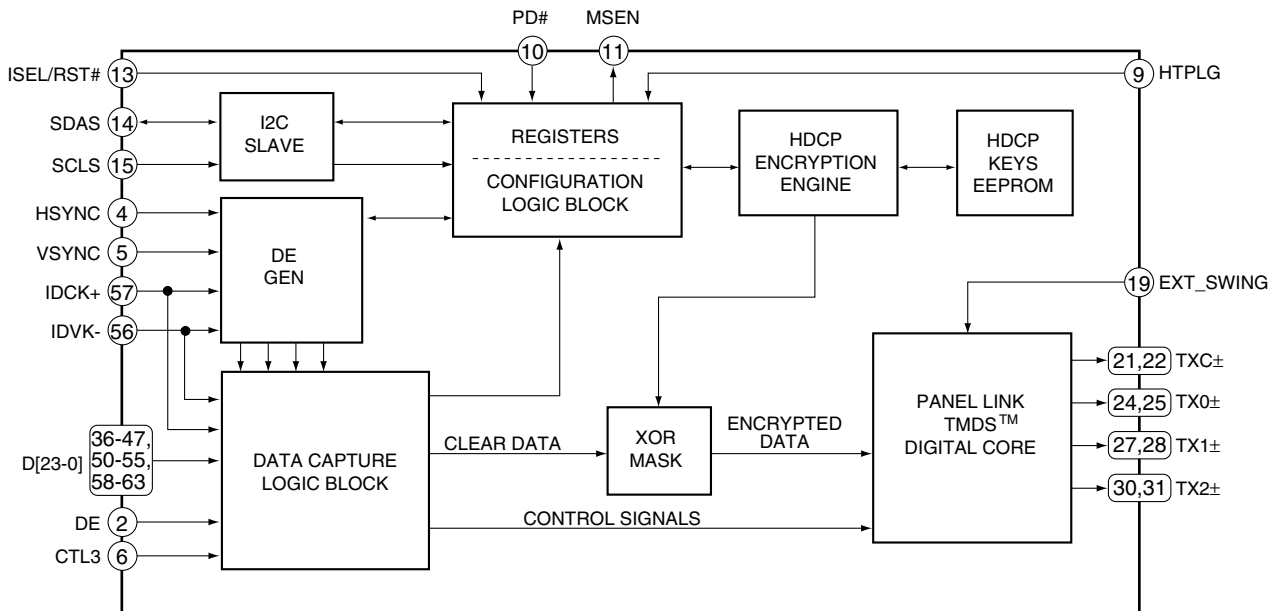
SII170BCLG64 (MR MAIN BOARD ASSY : IC7401)

- HDCP Panel Link Transmitter

• Pin Arrangement (Top view)



• Block Diagram



● Pin Function

No.	Pin Name	I/O	Pin Function
1	VCC	–	Digital power supply (3.3V)
2	DE	I	Data enable
3	VREF	I	3.3V fixed
4	HSYNC	I	Horizontal sync. control signal input
5	VSYNC	I	Vertical sync. control signal input
6	CTL3	I	External CTL3 input
7	NC	–	No connection
8	NC	–	No connection
9	HTPLG	I	Monitor charge input
10	PD#	I	Power down input (Active low)
11	MSEN	O	Monitor sense output (open-collector output)
12	VCC	–	Digital power supply (3.3V)
13	ISEL/RST#	I	I2C interface selecting input High: I2C interface is active
14	SDAS	I/O	DDC I2C data input/output
15	SCLS	I	DDC I2C clock input
16	GND	–	Digital ground
17	PGND1	–	PLL analog ground
18	PVCC1	–	Analog power supply for PLL of primary side (3.3V)
19	EXT_SWING	I	Voltage regulation adjustment
20	AGND	–	Analog ground
21	TXC-	O	Differential signal clock output of TMDS Low voltage
22	TXC+	O	Differential signal clock output of TMDS Low voltage
23	AVCC	–	Analog power supply (3.3V)
24	TX0-	O	Differential signal clock output of TMDS Low voltage
25	TX0+	O	Differential signal clock output of TMDS Low voltage
26	AGND	–	Analog ground
27	TX1-	O	Differential signal clock output of TMDS Low voltage
28	TX1+	O	Differential signal clock output of TMDS Low voltage
29	AVCC	–	Analog power supply (3.3V)
30	TX2-	O	Differential signal clock output of TMDS Low voltage
31	TX2+	O	Differential signal clock output of TMDS Low voltage
32	AGND	–	Analog ground
33	VCC	–	Digital power supply (3.3V)
34	RESERVED	I	Reserved pin for Silicon Image Normally, fixed to low.
35	GND	–	Digital ground
36	D23	I	24-bit pixel bus input
37	D22	I	24-bit pixel bus input
38	D21	I	24-bit pixel bus input
39	D20	I	24-bit pixel bus input
40	D19	I	24-bit pixel bus input
41	D18	I	24-bit pixel bus input
42	D17	I	24-bit pixel bus input
43	D16	I	24-bit pixel bus input
44	D15	I	24-bit pixel bus input
45	D14	I	24-bit pixel bus input

A

No.	Pin Name	I/O	Pin Function
46	D13	I	24-bit pixel bus input
47	D12	I	24-bit pixel bus input
48	PGND2	–	PLL analog ground
49	PVCC2	–	Analog power supply for filter PLL (3.3V)
50	D11	I	24-bit / 12-bit pixel bus input
51	D10	I	24-bit / 12-bit pixel bus input
52	D9	I	24-bit / 12-bit pixel bus input
53	D8	I	24-bit / 12-bit pixel bus input
54	D7	I	24-bit / 12-bit pixel bus input
55	D6	I	24-bit / 12-bit pixel bus input
56	IDCK-	I	Data clock - input
57	IDCK+	I	Data clock + input
58	D5	I	24-bit / 12-bit pixel bus input
59	D4	I	24-bit / 12-bit pixel bus input
60	D3	I	24-bit / 12-bit pixel bus input
61	D2	I	24-bit / 12-bit pixel bus input
62	D1	I	24-bit / 12-bit pixel bus input
63	D0	I	24-bit / 12-bit pixel bus input
64	GND	–	Digital ground

D

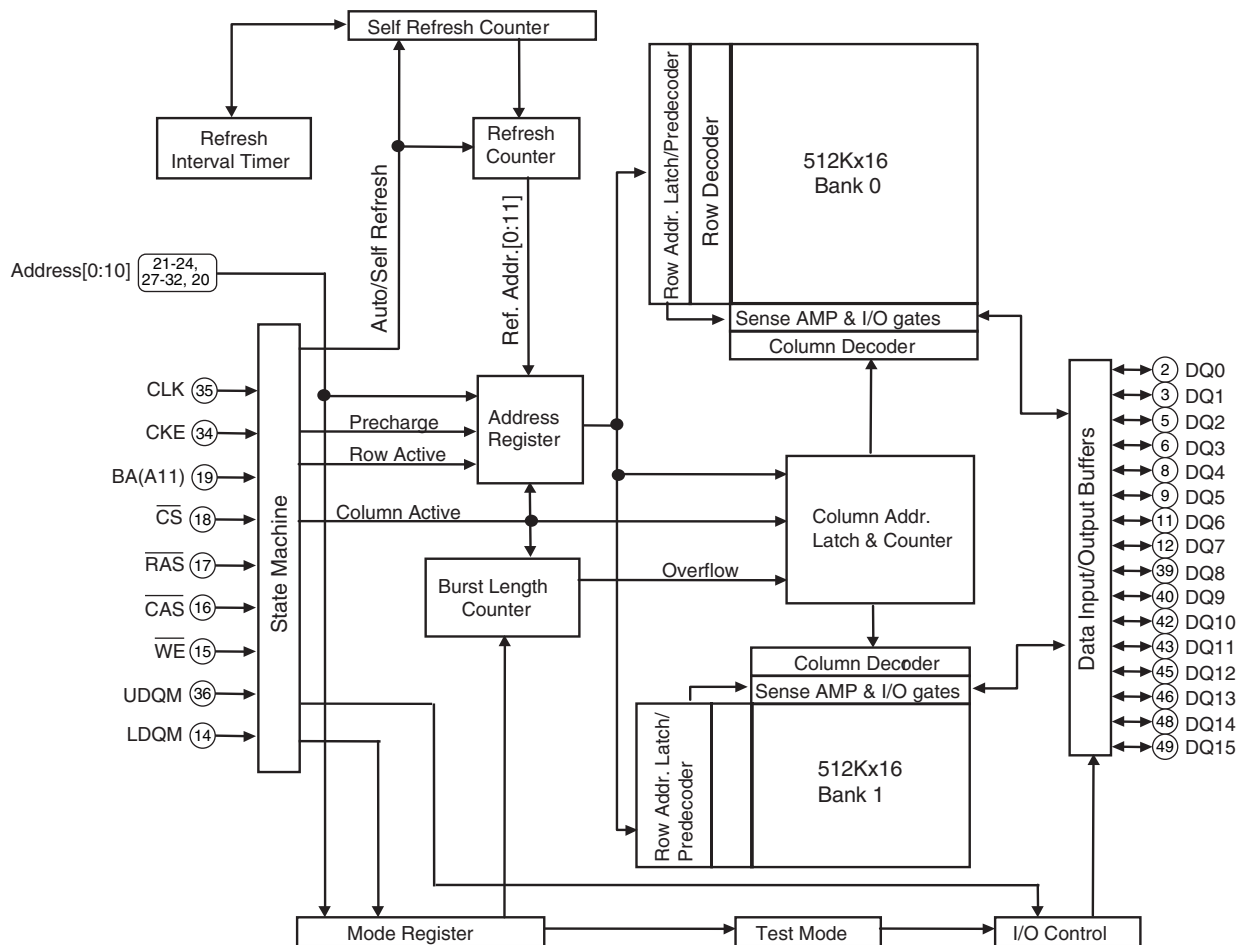
E

F

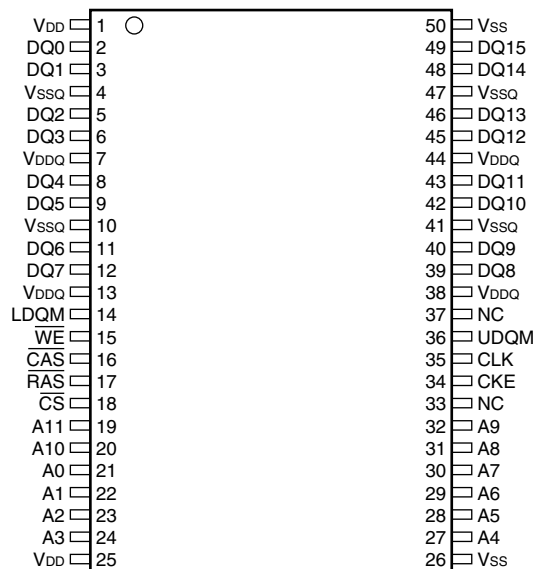
■ HY57V161610DTC-8 (MR MAIN BOARD ASSY : IC6106) (or K4S161622H-TC60-K)

• 16M SDRAM

● Block Diagram



● Pin Arrangement (Top view)



● Pin Function

A

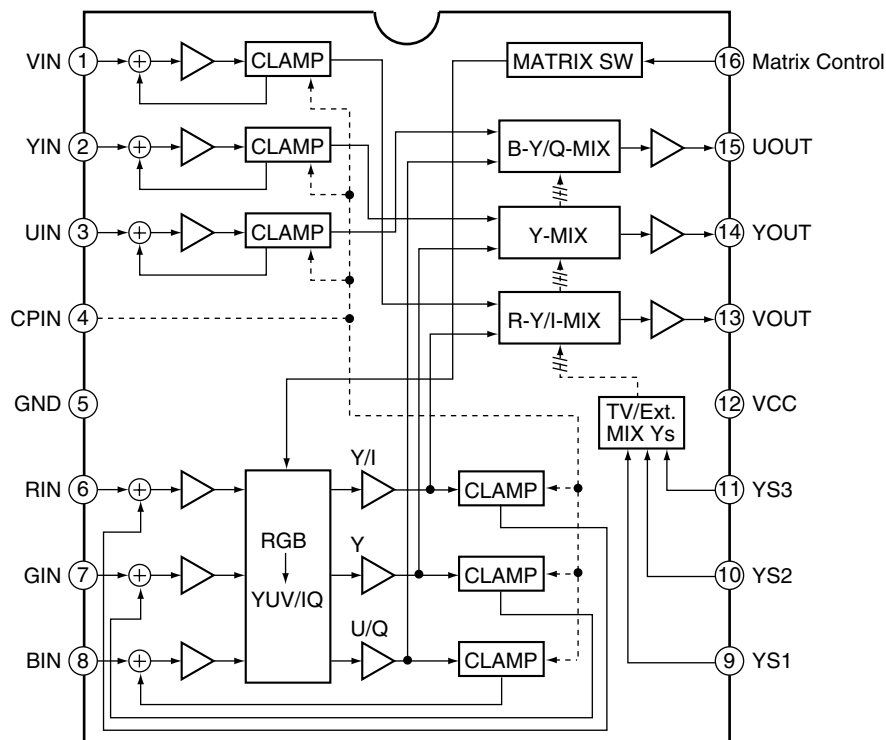
No.	Pin Name	I/O	Pin Function
1	VDD	–	Power supply
2	DQ0	I/O	Data input/output
3	DQ1	I/O	Data input/output
4	VSSQ	–	Ground for DQ
5	DQ2	I/O	Data input/output
6	DQ3	I/O	Data input/output
7	VDDQ	–	Power supply for DQ
8	DQ4	I/O	Data input/output
9	DQ5	I/O	Data input/output
10	VSSQ	–	Ground for DQ
11	DQ6	I/O	Data input/output
12	DQ7	I/O	Data input/output
13	VDDQ	–	Power supply for DQ
14	LDQM	I	Data input/output mask
15	/WE	I	Write enable
16	/CAS	I	Column address strobe
17	/RAS	I	Row address strobe
18	/CS	I	Chip select input
19	A11	I	Address input
20	A10	I	Address input
21	A0	I	Address input
22	A1	I	Address input
23	A2	I	Address input
24	A3	I	Address input
25	VDD	–	Power supply
26	VSS	–	Ground
27	A4	I	Address input
28	A5	I	Address input
29	A6	I	Address input
30	A7	I	Address input
31	A8	I	Address input
32	A9	I	Address input
33	NC	–	No connection
34	CKE	I	Clock enable
35	CLK	I	System clock input
36	UDQM	I	Data input/output mask
37	NC	–	No connection
38	VDDQ	–	Power supply for DQ
39	DQ8	I/O	Data input/output
40	DQ9	I/O	Data input/output
41	VSSQ	–	Ground for DQ
42	DQ10	I/O	Data input/output
43	DQ11	I/O	Data input/output
44	VDDQ	–	Power supply for DQ
45	DQ12	I/O	Data input/output
46	DQ13	I/O	Data input/output
47	VSSQ	–	Ground for DQ
48	DQ14	I/O	Data input/output
49	DQ15	I/O	Data input/output
50	VSS	–	Ground

F

■ TA1287FG (AV BOARD ASSY : IC8905)

• RGB to YUV/IQ High-speed Matrix IC

● Block Diagram



● Pin Function

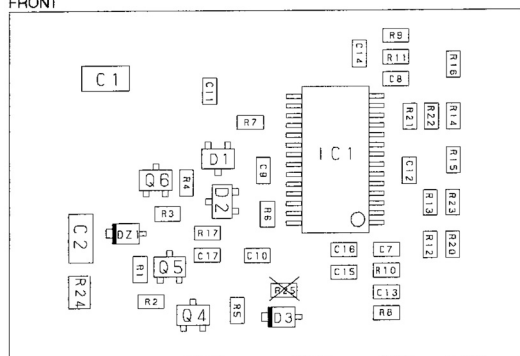
No.	Pin Name	I/O	Pin Function
1	VIN	I	Input R-Y (V) or R signal through a clamping capacitor.
2	YIN	I	Input Y or G signal through a clamping capacitor.
3	UIN	I	Input B-Y (U) or B signal through a clamping capacitor.
4	CPIN	I	Input clamping pulse. Threshold: 0.75V
5	GND	—	Ground
6	RIN	I	Input R or R-Y (V) signal through a clamping capacitor.
7	GIN	I	Input G or Y signal through a clamping capacitor.
8	BIN	I	Input B or B-Y (U) signal through a clamping capacitor.
9	YS1	I	Select to switch mixing ratio. Threshold: 0.75V
10	YS2	I	Select to switch mixing ratio. Threshold: 0.75V
11	YS3	I	Select to switch mixing ratio. Threshold: 0.75V
12	VCC	—	Power supply 9V
13	VOUT	O	Output R-Y (V) or R signal.
14	YOUT	O	Output Y or G signal.
15	UOUT	O	Output B-Y (U) or B signal.
16	Matrix Control	I	This pin's voltage control the matrix coefficient for output signals. Selects the output mode.

A

- DC-DC Converter Unit

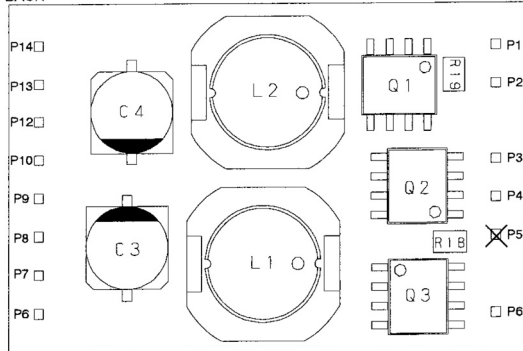
● Pin Arrangement (Top view)

FRONT



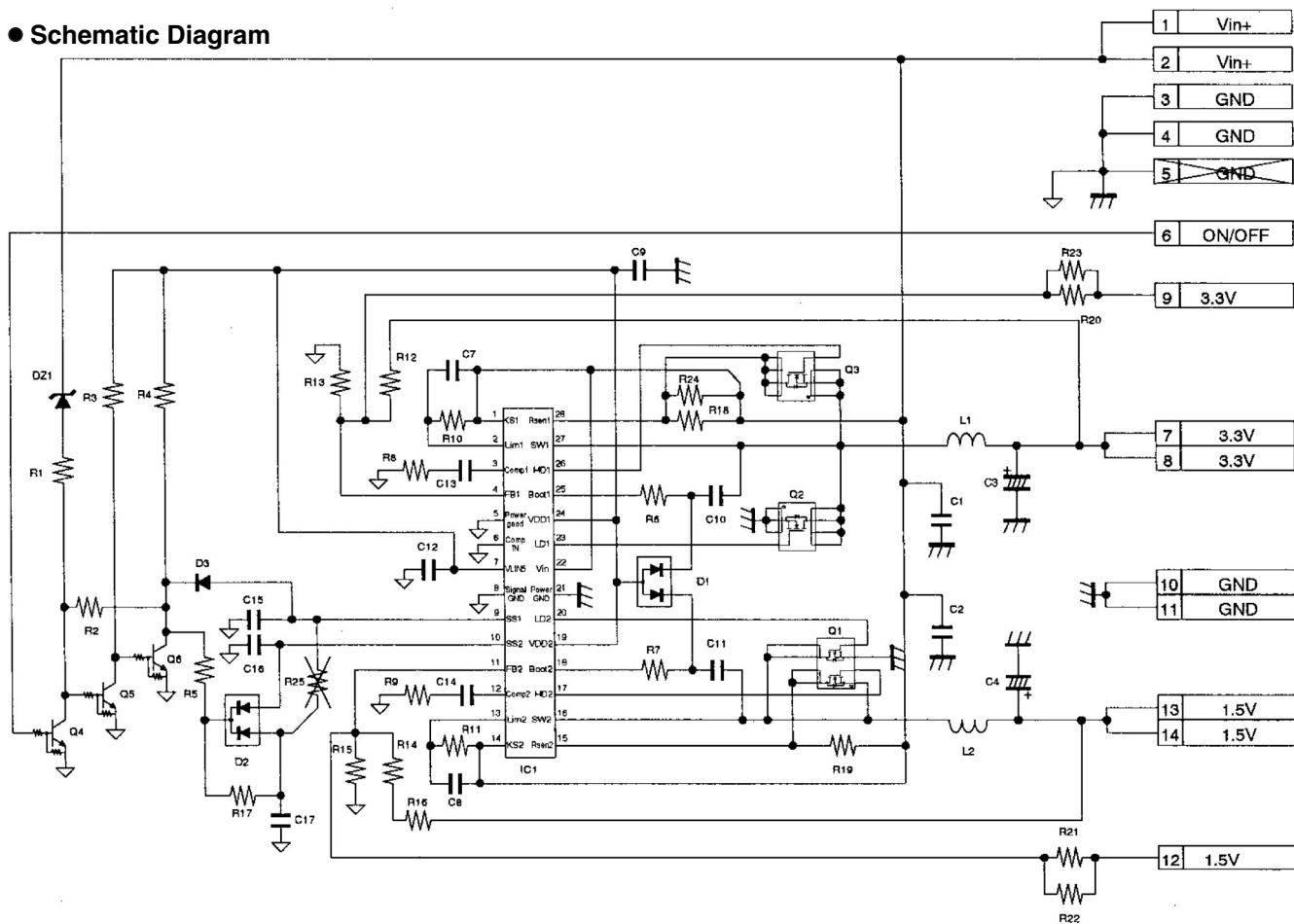
B

[BACK](#)



C

● Schematic Diagram



● Pin Function

No.	Pin Name	Pin Function
1	Vin	12V input
2	Vin	12V input
3	GND	Input side GND
4	GND	Input side GND
5	Omission terminal	Omission terminal
6	ON/OFF	Output ON/OFF
7	Vo1	3.3V output
8	Vo1	3.3V output
9	Vo1adj	3.3V variable output
10	GND	GND
11	GND	GND
12	Vo2adj	1.5V variable output
13	Vo2	1.5V output
14	Vo2	1.5V output

D

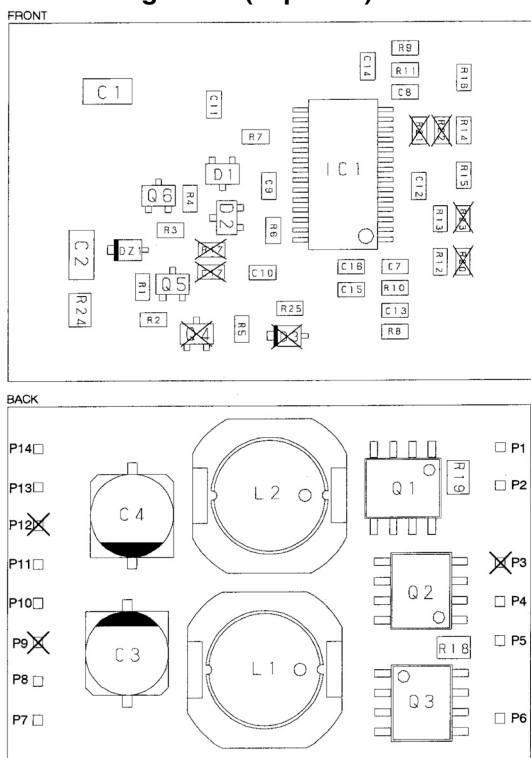
F

F

■ AXY1089 (AV BOARD ASSY : U8504)

• DC-DC Converter Unit

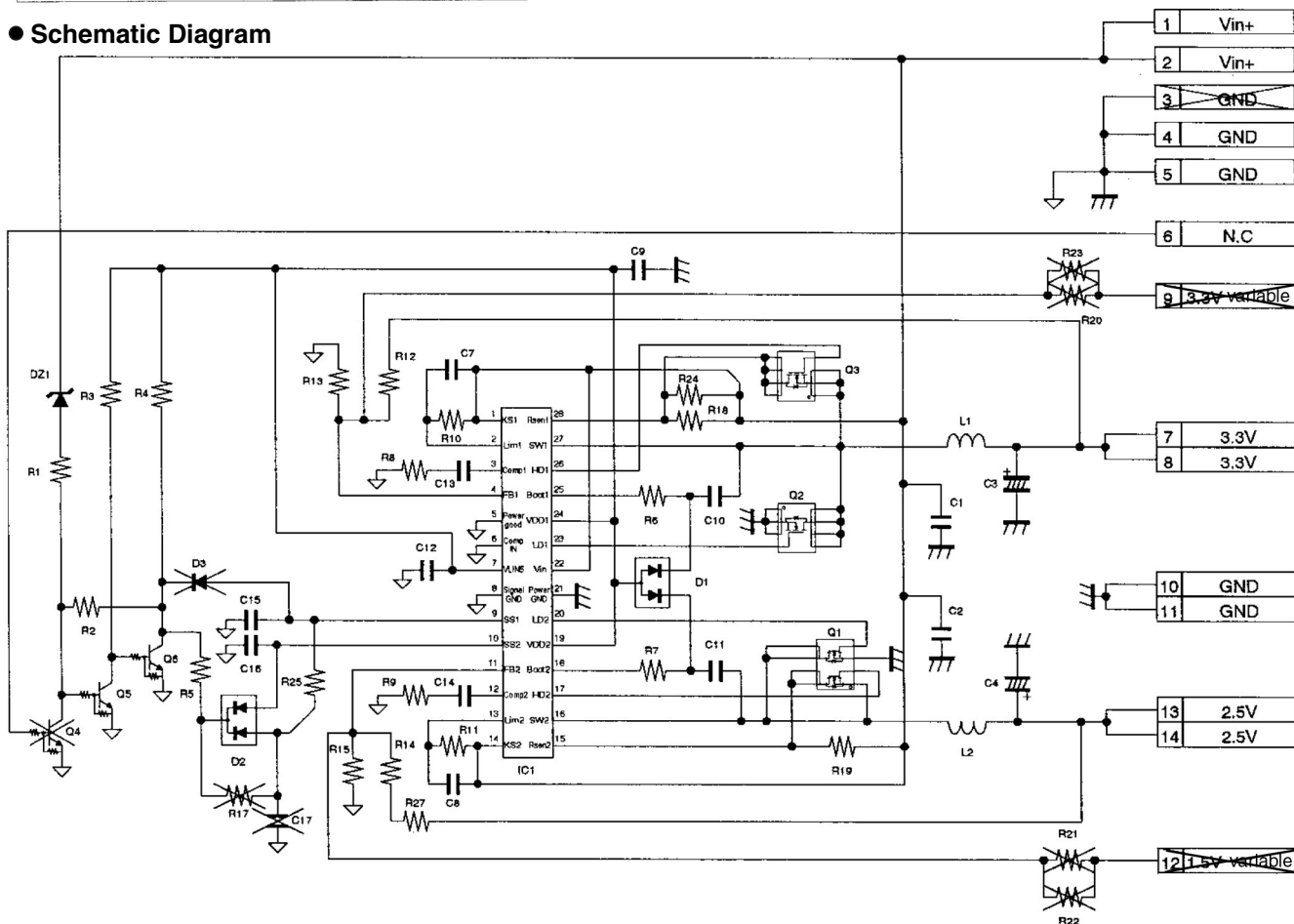
● Pin Arrangement (Top view)



● Pin Function

No.	Pin Name	Pin Function
1	Vin	6.5V input
2	Vin	6.5V input
3	Omission terminal	Omission terminal
4	GND	Input side GND
5	GND	Input side GND
6	N.C	N.C
7	Vo1	3.3V output
8	Vo1	3.3V output
9	Omission terminal	Omission terminal
10	GND	GND
11	GND	GND
12	Omission terminal	Omission terminal
13	Vo2	2.5V output
14	Vo2	2.5V output

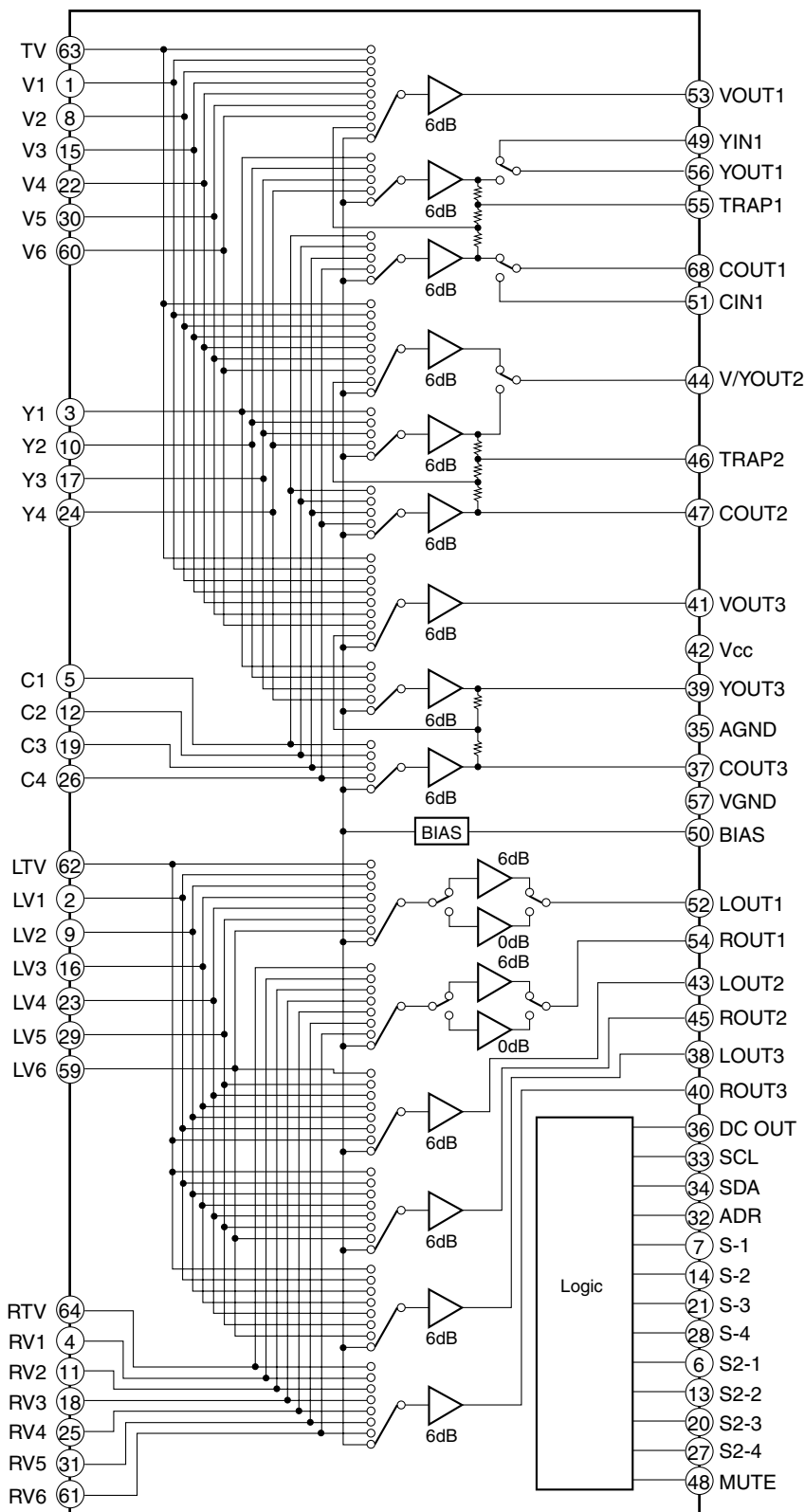
● Schematic Diagram



CXA2069Q (AV BOARD ASSY : IC8002)

• 7-Input 3-Output Audio/Video Switch

Block Diagram



● Pin Function

No.	Pin Name	I/O	Pin Function
63 1 8 15 22 30 60	TV V1 V2 V3 V4 V5 V6	I	Video signal inputs. Input composite video signals.
3 10 17 24 49	Y1 Y2 Y3 Y4 YIN1	I	Y/C separation signal inputs. Input luminance signals. The YIN1 pin inputs the signal obtained by Y/C separating the VOUT1 pin output.
5 12 19 26 51	C1 C2 C3 C4 CIN1	I	Y/C separation signal inputs. Input chrominance signals. The CIN1 pin inputs the signal obtained by Y/C separating the VOUT1 pin output.
62, 2 9, 16 23, 29 59, 64 4, 11 18, 25 31, 61	LTV, LV1 LV2, LV3 LV4, LV5 LV6, RTV RV1, RV2 RV3, RV4 RV5, RV6	I	Audio signal inputs.
53 41	VOUT1 VOUT3	O	Video signal outputs. Output composite video signals.
44	V/YOUT2	O	Video signal output. Either composite video signal output or luminance signal output can be selected by I2C bus control.
56 39	YOUT1 YOUT3	O	Video signal outputs. Output luminance signals.
58 47 37	COUT1 COUT2 COUT3	O	Video signal outputs. Output chrominance signals.
52 43 38 54 45 40	LOUT1 LOUT2 LOUT3 ROUT1 ROUT2 ROUT3	O	Audio signal outputs. Zo=50 ohm (within DC ± 2mA)
6 13 20 27	S2-1 S2-2 S2-3 S2-4	—	Detects the S2-compatible DC superimposed onto the C signal. 4 : 3 video signal at 1.3 V or less 4 : 3 letter-box signal at 1.3 V or more to 2.5 V or less 16 : 9 picture squeezed signal at 2.5 V or more This pin is pulled down to GND by a 100 k ohm resistor, so the 4 : 3 video signal is selected when open.

A

No.	Pin Name	I/O	Pin Function										
7 14 21 28	S-1 S-2 S-3 S-4	–	Composite video/S selector. The detection results are written to the status register. S signal at 3.5 V or less. Composite video signal at 3.5 V or more. This pin is pulled up to 5 V by a 100 k ohm resistor, so the composite video signal is selected when open.										
32	ADR	–	Selects the slave address for the I2C bus. 90H at 1.5 V or less 92H at 2.5 V or more 90H when open.										
33	SCL	I	I2C bus signal input VILmax=1.5 V VIHmin=3.0 V										
34	SDA	I	I2C bus signal input VILmax=1.5 V VIHmin=3.0 V VOLmax=0.4 V										
36	DC_OUT	O	Outputs the S2-compatible DC superimposed onto the COUT3 output. The DC is superimposed by connecting this pin to the COUT3 output via a capacitor. Control is performed by the I2C bus. When 0 V is output, Q1 is ON and the impedance is 5 k ohm. S2 protocol output impedance of 10 ± 3 k ohm is realized by attaching external resistance of 4.7 k ohm. <table><tr><td>DC_OUT (bus)</td><td>Output DC</td></tr><tr><td>0</td><td>4.5 V</td></tr><tr><td>1</td><td>0 V</td></tr><tr><td>2</td><td>1.9 V</td></tr><tr><td>3</td><td>4.5 V</td></tr></table>	DC_OUT (bus)	Output DC	0	4.5 V	1	0 V	2	1.9 V	3	4.5 V
DC_OUT (bus)	Output DC												
0	4.5 V												
1	0 V												
2	1.9 V												
3	4.5 V												
55 46	TRAP1 TRAP2	–	Connects trap circuit for subcarrier.										
48	MUTE	–	Audio signal output mute. Mute OFF at 1.5 V or less Mute ON at 2.5 V or more Mute OFF when open.										
50	BIAS	–	Internal reference bias (VCC/2). Connect to GND via a capacitor.										

C

D

E

7.4 CLEANING



Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools:

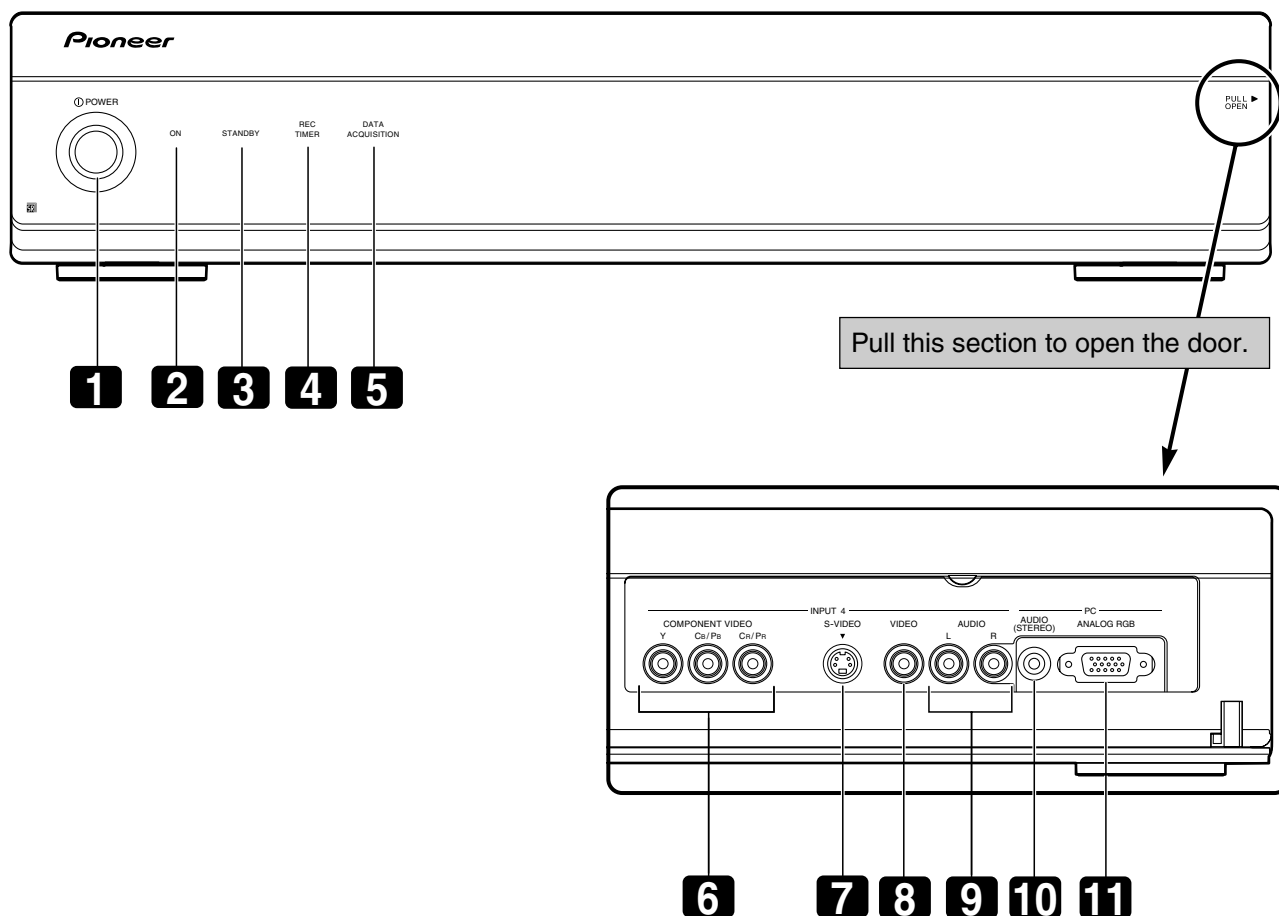
Position to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008

F

8. PANEL FACILITIES

Media Receiver

Front view

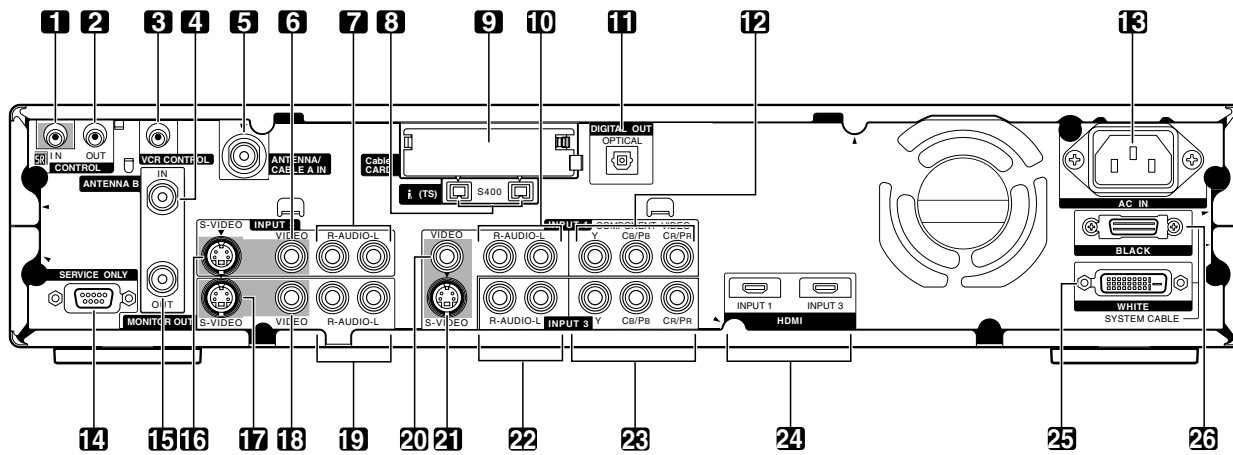


- 1 **POWER** button
- 2 POWER ON indicator
- 3 STANDBY indicator
- 4 REC TIMER indicator
- 5 DATA ACQUISITION indicator
- 6 INPUT 4 terminals
(COMPONENT VIDEO: Y, Cb/Pb, Cr/Pr)
- 7 INPUT 4 terminal (S-VIDEO)
- 8 INPUT 4 terminal (VIDEO)
- 9 INPUT 4 terminals (AUDIO)
- 10 PC INPUT terminal (AUDIO)
- 11 PC INPUT terminal (ANALOG RGB)

Rear view

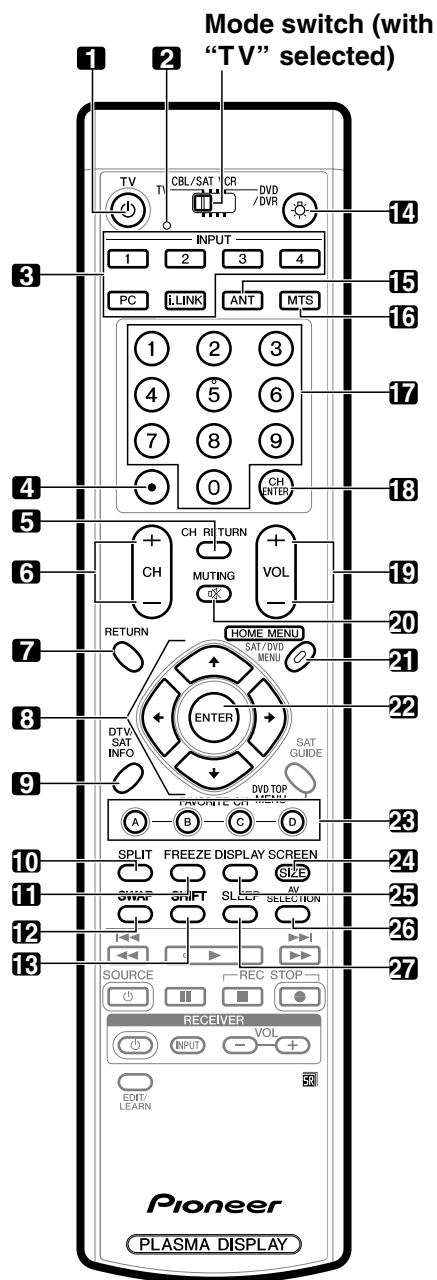
A

B



- | | | | |
|----|--|----|--|
| 1 | CONTROL IN terminal | 14 | RS-232C terminal (used for factory setup) |
| 2 | CONTROL OUT terminal | 15 | ANTENNA B OUT terminal |
| 3 | VCR CONTROL terminal | 16 | INPUT 2 terminal (S-VIDEO) |
| 4 | ANTENNA B IN terminal | 17 | MONITOR OUT terminal (S-VIDEO) |
| 5 | ANTENNA/CABLE A IN terminal | 18 | MONITOR OUT terminal (VIDEO) |
| 6 | INPUT 2 terminal (VIDEO) | 19 | MONITOR OUT terminals (AUDIO) |
| 7 | INPUT 2 terminals (AUDIO) | 20 | INPUT 1 terminal (VIDEO) |
| 8 | i.LINK terminals | 21 | INPUT 1 terminal (S-VIDEO) |
| 9 | Cable CARD slot | 22 | INPUT 3 terminals (AUDIO) |
| 10 | INPUT 1 terminals (AUDIO) | 23 | INPUT 3 terminals (COMPONENT VIDEO: Y, CB/PB, CR/PR) |
| 11 | DIGITAL OUT terminal (OPTICAL) | 24 | HDMI terminals (INPUT1/INPUT3) |
| 12 | INPUT 1 terminals (COMPONENT VIDEO: Y, CB/PB, CR/PR) | 25 | SYSTEM CABLE terminal (WHITE) |
| 13 | AC IN terminal | 26 | SYSTEM CABLE terminal (BLACK) |

Remote control unit



With the mode switch set to TV

- 1 **TV** : Turns on the power to the Plasma Display or places it into standby mode.
- 2 **Transmission confirmation LED**
- 3 **INPUT** : Selects an input source of the Plasma Display. (INPUT 1, INPUT 2, INPUT 3, INPUT 4, PC, i.LINK)
- 4 **• (dot)** : Enters a dot.
- 5 **CH RETURN** : Returns to the previous channel.

- 6 **CH +/-** : Selects the channel.
- 7 **RETURN** : Returns to the previous menu screen.
- 8 **▲/▼/◀/▶** : Selects a desired item on the menu screen.
- 9 **DTV INFO** : Shows more information on DTV programs.
- 10 **SPLIT** : Switches the screen mode among 2-screen, picture-in-picture, and single-screen.
- 11 **FREEZE** : Freezes a frame from a moving image. Press again to cancel the function.
- 12 **SWAP** : Switches between the two screens when in the 2-screen or picture-in-picture mode.
- 13 **SHIFT** : Moves the location of the small screen when in the picture-in-picture mode.
- 14 : When pressed, all buttons on the remote control unit will light. The lighting will turn off if no operations are performed within about 5 seconds. This button is used for performing operations in dark places.
- 15 **ANT** : Selects the antenna (A, B).
- 16 **MTS** : Selects the MTS/SAP.
- 17 **0 - 9** : Selects the channel.
- 18 **CH ENTER** : Executes a channel number.
- 19 **VOL +/-** : Sets the volume.
- 20 **MUTING** : Mutes the sound.
- 21 **HOME MENU** : Displays the menu screen.
- 22 **ENTER** : Executes a command.
- 23 **FAVORITE CH (A, B, C, D)** :
Selects any of the four preset channels. See page 37 for details to set the FAVORITE CH. While watching, you can toggle the set channels by pressing **A**, **B**, **C** and **D**.
- 24 **SCREEN SIZE** : Selects the screen size.
- 25 **DISPLAY** : Displays the channel information.
- 26 **AV SELECTION** : Selects audio and video settings. (AV mode: STANDARD, DYNAMIC, MOVIE, GAME, USER. PC mode : STANDARD, USER.)
- 27 **SLEEP** : Sets the sleep timer.

NOTE

- When using the remote control unit, point it at the Plasma Display
- See pages 62 to 68 for operating buttons not listed on this page.